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POLLUTION OF THE INTERSTATE WATERS OF
THE HUDSON RIVER AND ITS TRIBUTARIES
NEW YORK AND NEW JERSEY. PROCEEDINGS
OF CONFERENCE HELD AT NEW YORK,
NEW YORK, ON SEPTEMBER 28-30, 1965.
VOLUME 2

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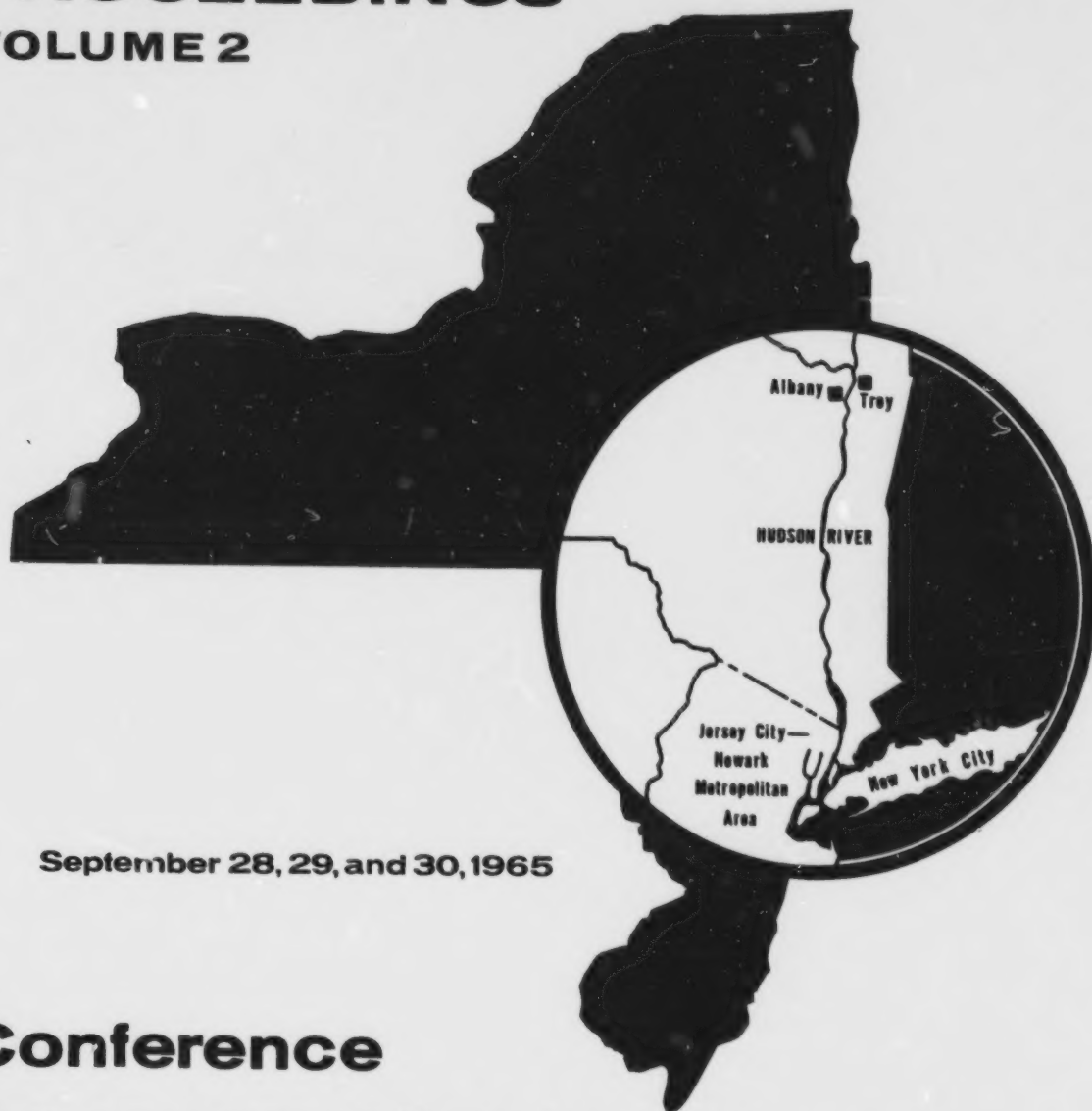
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PROCEEDINGS

VOLUME 2



September 28, 29, and 30, 1965

Conference

**In the matter of Pollution of the
Interstate Waters of the Hudson River
and its Tributaries -
New York and New Jersey**

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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Wednesday, September 29, 1965

9:30 A. M.

MR. STEIN: May we reconvene?

I think the record should show that in the absence of Dr. Kandle today, who had to go to that meeting in Philadelphia as we announced yesterday, we have two representatives of New Jersey, and they are indeed welcome, Mr. Alfred Fletcher, the Chief Engineer, and Mr. E. Powers Mincher, Counsel for the State Health Department.

I have worked with both of these gentlemen, at least since we started the revision in the law in 1955, so it has been a long time, about ten years.

We expect Mayor Wagner to arrive in about ten minutes.

I have another announcement in which I would like to correct a statement I made yesterday. I indicated, on the information I had at that time, that the President would sign the Federal Water Pollution Control Act amendment on Friday at 9:45. My latest information is that that has been changed to this Saturday at 10:00 o'clock. So, I guess Senator Kennedy was absolutely right when he said it was going to be signed this week. I wish I had that touch, always to phrase it and be safe, but the bill

will be signed this week, and, I understand, at 10:00 o'clock on Saturday of this week.

I would like to indicate what the program looks like to us at the present time. We expect that all the statements will be completed today. When that is completed, the conferees will go into executive session, and we will have an announcement, we hope, tomorrow at about 12:00 o'clock noon. The announcement of the conferees will be made in this hotel in the Sert Room, which is on the lobby floor.

It is suggested that you may want to check in sometime before noon, preferably at about 11:00 o'clock, with our Public Information Officer, Mr. Lebow, who will be there, and he will be able to give you the information as to when the announcement will be made.

The conferees, I am sure, will try to be as expeditious as possible in developing the announcement, but, as you can appreciate, this is a very complex issue and will take some time to develop. I do think that the conferees want to be rather careful in the framing of any conclusions we come to, because, as has been indicated, we are dealing with a vital national resource and with the possible expenditures of very, very large sums of money, so we want to be sure we are absolutely correct,

reasonable and equitable in anything we do.

At this point, I have a letter here from John V. Lindsay. Well, it says, "Lindsay for Mayor." My guess is he is a Congressman. It says:

"Dear Mr. Stein:

"I should like to submit the statement attached to the Conference on Pollution of the Hudson River called today by the Department of Health, Education, and Welfare.

"I am unable to testify in person because I am in Washington to vote on several matters before the House of Representatives, including a bill providing home rule for the District of Columbia.

"I strongly support the objective of the Conference convened by Secretary Gardner, and I hope that my statement may prove helpful in compiling views and recommendations on abatement of pollution in the Hudson River. You may be sure that I shall cooperate fully with programs for restoring the purity of the Hudson River at a municipal, State or Federal level.

"With very best wishes

"Sincerely,

"John V. Lindsay, M.C."

By the way, that home rule issue is kind of important to us back home at the ranch. I don't know if you people know this, but one of the few places in the country where the American flag flies where the people don't have the right to vote is the District of Columbia. There has been an amendment passed to the Constitution giving us a limited right to vote for a President and Vice President, but there is no locally elected city government, and this makes for some very, very real problems in the District.

Just in case you think you have problems up here, they are of a little kind. Down there, those buildings downtown which you would consider to be in the high tax district and which form your real tax base are Federal buildings, and, of course, are tax exempt. The District Government has to provide at least fire protection, water supply, and all other services to that tremendous area, and collect no taxes, so they do have a real specialized problem in the District of Columbia.

This has been met in the past by a Federal payment; that is, the Congress appropriates a certain amount of money each year to defray the costs of the District of Columbia.

Some people have tried to get that payment --

I guess the bureaucrats use the word -- "regularized," so that lump sum payments will be made available each year on the basis of some formula, but, of course, congressmen, being what congressmen are, like to look at it each year, and each year you go through a hassle in the District of Columbia deciding how much money should be made available.

You know, for years we used to operate in the District of Columbia on daylight saving time. There was a crisis every year to see whether the District of Columbia would employ daylight saving time, and the Congress would drop their other business and take that up and have a debate on whether we should have it or whether we shouldn't have it, and what date we should start. Every year you would hear the same old arguments, that the cows couldn't tell the difference, but that has been regularized now and they do have daylight saving time on a uniform basis.

But I thought one of the best arguments I heard was one that happened in the last few years of debate. I think I remember who said this, but since I am not sure I won't credit him with the quote, but he did say, "Think of all those people who will die between April and September, who will lose that hour and never

make it up."

(Laughter.)

Well, Congressman Lindsay has put in his statement, and his statement will be entered in the record. I will read the statement, and when the Mayor comes, of course we will have the Mayor come up.

The statement is as follows:

John V. Lindsay

STATEMENT OF HONORABLE JOHN V.
LINDSAY, CONGRESSMAN, 17TH DIS-
TRICT, NEW YORK, NEW YORK, READ
BY MR. MURRAY STEIN

The Hudson River rises high among the pines and granite of the Adirondack Mountains. It pours, cool and pure, from clear lakes and streams. Hikers drink from the Hudson the natural way, by cupping their hands to bring up the sparkling water.

But by the time the Hudson completes its 306 mile journey to the sea, no outdoorsman would think of drinking it directly; for as the Hudson flows into the Atlantic, it has been destroyed for every pleasurable human purpose.

As a Congressman representing New York City, and as a candidate for Mayor of this city, I am deeply encouraged by the interest of the Federal Government in the despoiled Hudson, as shown by the sponsorship of this conference.

We shall need the cooperation and financial assistance of the Government in cleaning up the Hudson, for no State or city obviously can work alone. It is my

John V. Lindsay

pledge that if elected Mayor, I will do everything in my power to end the pollution entering the Hudson and other city waters from New York City. It will be a massive, expensive undertaking, one which must make up for decades of neglect.

Every day New York City generates 1,800,000,000 gallons of sewage. Less than 60% of the wastes are processed at sewage treatment plants.

As a result, the City dumps a minimum of 500 million gallons of raw sewage into New York Harbor alone every day. The west side of Manhattan alone dumps 175 million gallons of raw sewage into the Hudson.

In large areas of Manhattan, all of the waste produced in buildings -- offices, hotels, restaurants -- goes directly into the Hudson River. It is little wonder that fifteen years ago the New York City's Board of Water Supply described the Hudson as "an open, running sewer."

Amazingly, the City did not even begin to treat its water wastes until 1935. We have thought that the vastness of New York Harbor, opening onto the even vaster Atlantic, would always be capable of diluting our sewage. We were wrong. The harbor is a smelly, filthy body of water.

More than 10 billion gallons of Hudson River

John V. Lindsay

water flows past New York City every day. New York City does not use a drop of it for drinking water. With this enormous source of fresh water at our doorstep, New Yorkers must ask for a glass of water in a restaurant, curtail air conditioning and lawn sprinkling. Why? Because we have a water shortage.

We have been corrupting our waters for a long time. Fifty years ago, 540 of the City's 575 miles of waterfront were deemed unfit for swimming. Almost none of the shoreline has been reclaimed. We have less than 20 miles of beaches where the water is considered clean enough for swimming. And the water quality at many of these beaches is highly questionable.

New Yorkers, in fact, were able to swim at only four major beach areas this summer which carried Class A ratings by the City Health Department. They were the Rockaway beaches, Orchard Beach in the Bronx, Brighton Beach in Brooklyn, and the Princess Bay - Wolfes Beach area on Staten Island. All the other beaches, including Coney Island, were rated as either conditionally safe or unsafe.

Swimmers are not the only victims of New York's polluted water waste:

The City's oyster industry has disappeared.

John V. Lindsay

Commercial and private clamming is dying, following the 1961 outbreak of infectious hepatitis traced to clams taken from Raritan Bay. Although a portion of the Bay has been reopened to clamming, the estimated annual loss to the shellfish industry in New York Harbor waters is placed at 2.5 million dollars.

The shad industry, once a million dollar a year business, now yields only about \$30,000 annually. The shad run has been to a large extent blocked by the pollution barrier in the lower Hudson -- the same river in which salmon once swam upshore in great schools to spawn.

Fishing within New York Harbor is largely futile. Many fish will not enter the Harbor because the water is so bad; the fish that have survived cannot be eaten without misgivings. Fishermen say that a nail dropped into the Hudson at New York City will not rust because hardly any oxygen remains in the water.

Pleasure boating is at best unpleasant in most of the City's waters. Anyone who falls overboard is in danger of swallowing water filled with germs that may cause dysentery, hepatitis or typhoid fever.

Passengers on the ferries operating in New York Harbor often enjoy the salt spray whipped onto the

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ferries by winds. An engineer, familiar with the rank pollution of the spray, has commented: "Surely this is a situation where ignorance is bliss."

Many of our picnic grounds and shoreline recreation centers are unusable because of the stench from polluted tidal flats or ugly waste deposits on the beaches.

In 1963, residents of the Bergen Basin section of Jamaica Bay found the paint on their houses turning black. The discoloration was traced to vapors arising from sewage bypassing a treatment plant undergoing repairs. The water into which the sewage is being discharged had turned septic, producing a noxious gas which attacked paint.

A final illustration of the City's water pollution problem is to be found in the case of eight children who, in August of last year, were stricken with typhoid fever. All of the victims had eaten portions of a watermelon found floating in the Hudson River off the lower Bronx. One of the children reported that there had been a soft spot in the melon, and authorities believe that contaminated water carrying typhoid germs had entered the melon at that point. Similar cases have been reported in Georgia and Massachusetts.

Although some of the children were admitted to hospitals, none died. Yet the incident tells us much about the poison and potential dangers of our polluted waters.

New York City's pollution problem is compounded by two factors:

The Harbor is subject to strong tidal action, which means that the waste we discharge into the Hudson and East Rivers often sloshes to and fro with the tides.

Studies have found that sewage discharged into the Hudson River may remain in the river and harbor for two weeks or more, with remarkably little dilution. Wastes have been traced to points as far as 10 miles upstream of New York City days after their discharge from Manhattan.

Secondly, New Jersey contributes about 30% of the pollutants to New York Harbor. New York -- except for its participation in the Interstate Sanitation Commission -- has very little control over wastes entering its waters from New Jersey.

In a single sentence, the repellant, disgraceful condition of New York City's waters is caused almost entirely by the City's failure to provide adequate sewage treatment plants to cope with its vast and mounting

John V. Lindsay

production of wastes.

New York has 5,300 miles of sewers, but almost all of Staten Island and parts of Queens and Brooklyn lack sewer systems. In 1962, the City's Department of Public Works was instructed to install mains in unsewered areas and also to replace and repair old and leaky sewers. The estimated cost at that time was 1.2 billion dollars. Since then, according to the 1964 annual report of the City's Bureau of Water Pollution Control, the predicted cost has doubled.

The report also states that at the present rate progress, the City will not be completely sewered until the year 2035. By that time, the existing facilities may be obsolete.

The City made a fundamental mistake -- one which it is now paying heavily for -- when years ago it accepted a combined sewer system to transmit its sewage. Under a combined system, rainwater is carried in the same sewer that normally carries only sewage.

When it rains, consequently, the sewer cannot handle the additional volumes of rainwater. Thus the combined flow must be released into waterways before it reaches a treatment plant. These filthy discharges are responsible for up to 90 percent of the City's water

John V. Lindsay

pollution problem.

The alternative would have been to install separate sewer systems throughout the City. Storm sewers would carry rainwater and other surface runoff exclusively and would empty it directly into the nearest waterway. The sanitary sewer running parallel to it would carry only the sewage destined for treatment plants.

Very few major cities have separate sewer systems. One of the few is Norfolk, Virginia, which far-sightedly insisted upon separate sewer systems before it underwent its tremendous growth beginning in World War II. As a result, all of the waters surrounding Norfolk are open for swimming. Moreover, once-condemned shellfish beds are now being used commercially.

A combined sewer system is cheaper and easier to install, but is much less efficient than a separated system. The obvious reason is that the City can adjust its treatment facility capacity to the predictable flow of the City's sewage. It does not have to attempt to treat enormous volumes of stormwater runoffs. Also, it has recently been determined that rainwater routed into a combined sewer flushes out large amounts of solids directly into water courses, thus intensifying the pollution of our rivers during and immediately after rainstorms.

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Discouragingly, the cost of separating New York City's sewer system is fantastically high (ranging from \$4 to \$10 billion). It would cost \$500 million to convert the combined sewers in Jamaica Bay alone. The job would involve laying stormwater mains alongside almost every existing sewer in the City, and also would involve the tying in lateral mains to all buildings to collect rain runoff and carry the water directly into the storm sewer. Perhaps the only area of the City in which separate sewers can be installed with any ease is on sparsely-developed Staten Island. (Staten Island has no sewers in 65% of its area, Queens 35%, Brooklyn 5 - 10%.)

The Island presently is served by old-fashioned septic tanks which are likely to cause considerable pollution -- particularly of groundwater supplies -- if they are relied upon exclusively during the tremendous growth forecast for the Island with the completion of the Verrazano-Narrows Bridge.

Having committed itself to a single sewer system, the City then failed to construct sewage treatment facilities which would cope with the ever-increasing flow of waste from New York's every-increasing population. By 1946, only seven plants were operating. Today, almost

twenty years later, New York has twelve plants and not all of them operating at full capacity.

It should be pointed out, in fairness, that several of the early plants have been substantially expanded. The fact remains, however, that more than one-third of the City's sewage never reaches these plants.

The \$43 million plant now nearing completion at Newton Creek in Brooklyn will be the City's largest, with a daily capacity of 310 million gallons. It will treat sewage from lower Manhattan, Queens and the Bronx. Still, more than 400 million gallons of sewage a day will course into New York's waters without even rudimentary treatment.

The City's program for water pollution control envisions eighteen treatment plants with a capacity of almost 1.8 billion gallons a day -- at a cost of \$460 million -- a figure which coincides with the expected rate of water consumption in the City in the year 2,000.

The City also plans to build a water pollution control plant on the North River near West 140th Street to treat sewage which now is dumped from Manhattan into the Hudson and Harlem Rivers.

Another major project is the Red Hook Plant which is to be built in Brooklyn under the Manhattan

John V. Lindsay

Bridge. It is expected to substantially reduce pollution of the East River.

Still another water purity project is the marginal water pollution program initiated in the Fall of 1963. The program is designed to make swimming safe in areas of Jamaica Bay, Eastchester Bay, and the upper East River.

The program calls for trapping overflows from sewers during storms and chlorinating the water to reduce its bacterial content. The program will cost an estimated 175 million dollars. But the program is still in the planning stages.

New York also cooperates with the Interstate Sanitation Commission to combat water pollution affecting New York and New Jersey and New York and Connecticut. The compact which established the Commission represents the cities' primary hope for abolition of pollution from the New Jersey side of New York Harbor. Under this 1957 consent order, it was agreed to commit all controls required to achieve the treatment of all sewage and industrial wastes entering New York City's bordering waters by the end of 1957.

Without meaningful interstate controls, New York City's efforts to abate pollution of the Hudson River

John V. Lindsay

will be negated by contaminants entering the river from New Jersey.

In this regard, it is encouraging that the recently passed Federal Water Quality Act authorizes the Department of Health, Education, and Welfare to enforce water quality standards on interstate rivers and lakes. Heretofore, Federal and State anti-pollution efforts were largely after the fact. They were directed at cleaning up the streams after they had been fouled by wastes. Under this 1965 Act, States can work with the Federal Government in establishing quality standards which will prevent presently unpolluted waters from being contaminated.

The Act will benefit New York City increasing the grant authorized for community sewage treatment facilities constructed by a single municipality from \$600,000 to \$1.2 million. The City, which has not always obtained its full share of assistance under previously existing Federal programs for water pollution control -- most recently in 1962 -- should take full advantage of the Act. Federal assistance alone will not solve the intense pollution of New York City's waters; but it will help.

Additional help may be forthcoming from the State. The New York Legislature unanimously passed a bill

John V. Lindsay

this year authorizing the State to assume 30 percent of the construction costs of local interceptors and sewage treatment plants. The Federal Government would pay 50 percent of the project costs, and the local government would pay the remainder.

This six-year water program would be financed by a \$1 billion bond issue if the borrowing is approved by the voters as Proposition #1 on the November 2nd ballot.

A hopeful sign, also, was the recent grant by two Federal agencies of \$100,000 to assist New York City in developing a master plan for recreational facilities. The plan would be the basis for a ten-year, \$500 million recreational program. A substantial part of the money would be devoted to water pollution control.

Although increased Federal and State help is on the way, New York City must strike out on an energetic, realistic program for restoring life to the Hudson River and its other defiled waterways. We must take the lead in cooperating on a Federal, State and City level in cleaning up the entire Hudson River. It is imperative that we do so, for it is more and more evident that the City must some day utilize the Hudson as an everyday source of its drinking water.

Yet, as far upriver as Poughkeepsie, the

John V. Lindsay

Hudson is brackish because of sea water moving upstream. Also, pollution originating in New York City is sometimes carried more than ten miles upstream by tidal action and intrusions of salt water. We must coordinate our program with Connecticut and New Jersey for our mutual benefit.

If I am elected Mayor of New York City, I will accelerate the construction of sewage treatment plants and sewers with the goal that all of the City's wastes will be treated before discharge into our waterways. That means increasing the number of plants by one-third.

Call a conference of everyone concerned with the pollution of our waters to gather the opinions and facts necessary to assign priorities to the City's anti-pollution work. The conference would obtain recommendations of sanitary engineers, conservationists, fishermen, Federal and State representatives, contractors, and everyone interested in the cleanup of New York City's waterways.

It seems to me that we must concentrate our spending and our construction in this area where it will achieve the best results. Should we give top priority to reducing pollution in Jamaica Bay? Should we first attack the problem of raw sewage being dumped into the Hudson from Manhattan Island? Or should we devote our

John V. Lindsay

primary efforts toward abatement and prevention of pollution on Staten Island?

Another highly important decision on which the Mayor should have the advice of all concerned is whether the City should embark on a program for separating its storm and sanitary sewers. A great division of opinion exists on the question. As I mentioned earlier, the estimated cost is some four billion dollars, and that figure does not include the obvious inconveniences and disruptions which would be caused by laying separate sewer lines throughout our five boroughs.

The alternative, however, is to accept a system which will empty raw sewage into our water whenever there is a heavy rainfall. With a single system carrying both sewage and rainwater runoff, we may never be able to treat all the City's wastes, no matter how many treatment facilities we construct.

At the same time, we should lay out at least a four-year plan for interceptor sewers and treatment plants which will show us where we are going and why.

The City should insist, I believe, for separate sewer systems in those areas of the City which are being developed -- such as Staten Island and at Little Neck in Queens. It is much simpler and far less costly

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to install a separate system at the outset than it is to achieve it when buildings and roadways are already in place.

The City should also strengthen its Bureau of Water Pollution Control both in manpower and equipment.

Finally, we need to work closely with the Federal and State agencies in achieving our common goal of pure water, and in obtaining the City's fair share of assistance in the struggle.

We cannot clean up the Hudson in one year or in four. The City started too late. We must make up for at least a century of heedless, shameful despoilage of the once proud waters of New York.

I reject the proposition that our water pollution problem is unmanageable, as I reject the proposition that New York City is ungovernable.

We must not suffer in silence the silent crisis which has seen our waters destroyed for any pleasurable purpose.

We can clean up our rivers, our harbor and -- yes -- the ocean which our wastes have defiled. And we will. This generation not only must correct the mistakes of the past; it must provide for the water needs of the future. It is time to face up to the job and to get on with it.

MR. STEIN: At this time, it is our privilege to hear from the largest unit of government in this immediate vicinity most intimately concerned with this problem, and I know which they have reckoned with earnestly over many years.

The Mayor of the City of New York, Mayor
Robert F. Wagner.

(Applause.)

Mayor Robert F. Wagner

STATEMENT OF HONORABLE ROBERT
F. WAGNER, MAYOR OF THE CITY
OF NEW YORK

MAYOR WAGNER: Gentlemen:

I recognize the extreme and even urgent importance of this conference and of its subject matter. There is no more important problem for the people of New York City.

As far as the general public is concerned, this problem has been underplayed. Insufficient attention has also been given it by both the Federal and State Governments. Meanwhile, the problem has grown -- bigger, bigger and bigger.

Now at last both the Federal and State Governments have begun -- and I emphasize begun -- to focus meaningful attention -- translated into efforts and money -- on this crucial problem.

This conference is a commendable manifestation of the intensified governmental attention and interest in this vital matter.

The Proposition on our State ballot which will be before the people at the November election --

Mayor Robert F. Wagner

Proposition No. One -- is a major result of that interest.

The approval of Proposition One is of major importance for the effort to clean up the waterways of New York State.

As I shall emphasize later on in this testimony, New York City stands to benefit much less than we should from Proposition One and its implementing legislation. In fact, we may benefit relatively much less than many other communities in New York State. But even so -- and I shall have something to say about this aspect of the matter later on in my testimony -- I support Proposition One, very emphatically. I strongly support the billion dollar bond issue which will help clean up our streams, including the Hudson.

I think there is credit enough for everybody in the measures now being taken by both the Federal and State Governments to meet the problem. Both levels of government should have done more in the past. We need much more help than even the present legislation provides. It is only a beginning. I emphasize that both the State and Federal Government must do much more. I hope they will.

And, speaking of credit, there should be enough credit for New York City, too, for what we have

Mayor Robert F. Wagner

done and are doing, in the effort against pollution. We deserve much more credit than most. We have done more than most.

But I understand the tendency, once the alarm has been sounded, to try to point the finger of blame at somebody.

Speaking for New York City, I would resent any implication that we have been derelict in our responsibilities to reduce and control water pollution.

I am going to cite the record on that, in order to clear the record.

But let us not lose sight of the realities. Proposition One on the ballot in November is such a reality. I very much hope and urge that maximum support be mobilized behind it. For the sake of the Hudson, Proposition One must be approved.

As far as New York City is concerned, I want to state emphatically, at the very beginning, that we have been doing our part, and much more than just our part, to resolve the problem of water pollution in this area. We contribute to the problem, but proportionately we have done more -- almost entirely out of our own resources -- to help solve this problem than any other major city. Now it is recognized to be a State and

Mayor Robert F. Wagner

National problem. I have long urged such an assumption of responsibility. In now recognizing their responsibilities, the Federal and State Governments are late, but welcome.

New York City has been among the pioneer cities of the East in sewage treatment and water quality control, just as it has been a pioneer city in water supply planning.

There is, indeed, a close relationship between water consumption and sewage volume. Moreover, there are major points of juncture between water and waste water, where one affects the other in critical ways. For example -- and this is a critical example -- there is the matter of the emergency water supply we are preparing to secure from the Hudson River at Chelsea. As all of you must know, we applied for and secured permission from the State Water Resources Commission to draw from the Hudson River a daily intake of 100 million gallons, on an emergency basis, by means of a pumping station to be reconstructed at Chelsea, up-river near Poughkeepsie.

Of course, the waters of the Hudson River which Henry Hudson described in his log as "clear, blue and wonderful to the taste," are today heavily and even poisonously polluted. This has been true for a long

Mayor Robert F. Wagner

time. In recent years it has grown worse. We know this. We have known it for a long time. And so, in 1950, when the City was forced to make arrangements for an emergency water supply out of the Hudson, a treatment plan was developed for the water that was to be pumped into our aqueducts and reservoirs. Our plan, at that time, considered both chlorination and coagulation as essential treatment.

Again, in 1965, in complete accord with the recommendations and requirements of the State Department of Health and the U. S. Public Health Service, we are planning extensive treatment works. We shall chlorinate, coagulate, and then chlorinate again.

We already have a coagulation plant at Kensico. I can tell you -- and this has not been made public before -- that the City is committing itself to construct a second coagulation plant at West Branch, if this should become necessary.

In accordance with our Interstate Carrier License, there will be an exhaustive evaluation and review of the condition of the Hudson water we pump, on a monthly basis. We will be prepared to take whatever further steps are determined to be necessary by the consortium of officials who will be meeting monthly to review

Mayor Robert F. Wagner

the situation.

I have instructed the appropriate City departments to move without delay to meet the requirements of both the State Health Department and the Federal Public Health Service, whichever establishes the higher requirements for the Hudson water we take into our reservoirs. We desire to take every precaution which may be reasonably and responsibly proposed, to advance and insure the health of the people of the City of New York.

These are my instructions to our own City officials. This is the earnest undertaking of the City of New York.

I have been advised that continuing conversations on this phase of the matter have been under way between our City officials with the appropriate State and Federal officials. I am assured that my instructions have been translated into all the necessary detailed commitments to satisfy the requirements and recommendations of both the Federal and State officials.

I return now to what might be called the mainstream of this conference -- the relationship, as far as the Hudson is concerned, between water pollution and sewage disposal and treatment. I know that you -- that all of us -- are concerned with what measures have

Mayor Robert F. Wagner

been taken, are being taken, can be taken, and ought to be taken -- to stem the pollution of this river -- to detoxify it and purify it and to make its waters drinkable, swimmable, and fishable -- and beautiful.

Of course, our concern in New York City is with all the waters surrounding us -- the waters of our harbor and all the rivers flowing through our City and into our harbor.

I want to emphasize, as strongly as I can, that New York City has been concerned over water pollution and has been taking action against water pollution since 1897, when New York City in its modern form was created. As far back as 1906, there was a New York Bay Pollution Commission, which studied harbor pollution and recommended sewage treatment. In 1906 the Metropolitan Sewage Commission was formed, which continued in existence until 1914. During this period, half a century ago, New York City built several chemical treatment and screening plants. About 20 percent of the City's sewage was treated in these plants. That was a major share, for those days.

In 1931, the New York City Sanitary Commission proposed an extensive construction program of water pollution treatment plants. This recommendation led to the development of New York City's modern Sewage Treatment

Mayor Robert F. Wagner

Program. The first part of that program was completed in 1937 and consisted of the Ward's Island Sewage Treatment Plant. In 1932, the Tri-State Treaty Commission was established. This Commission strongly supported the view that New York City, by itself, could not possibly abate all the river and harbor pollution. It would also be necessary for the surrounding communities to take appropriate action to treat their sewage.

Consequently, in 1936, the Interstate Sanitation Commission was created, continuing to operate until the present time. This Commission made recommendations, which, along with those of successive groups of engineering consultants, contributed to the development by our City Planning Commission in 1941 of a Master Plan of Sewage Treatment Plant Sites and Tributary Areas. This master plan, with some modifications, has been followed ever since.

Today, we of New York City can safely and even proudly say that the completion of a comprehensive program for the treatment of all New York City's sewage is in clear sight.

The Master Plan provides for 18 treatment plants. As of today, 12 of those treatment plants are in full operation.

Mayor Robert F. Wagner

As of today, New York City is giving primary and secondary treatment to some 800 million gallons a day out of an estimated average dry weather sewage flow of 1200 million gallons a day. That is 66 percent of our total discharge. No other major city in the area treats as high a percentage. Of the remaining 400 million gallons of our untreated discharge, approximately 45 percent goes into the Hudson. I wish this weren't so. But this is near the end of our basic program. Our first efforts had to be to protect, as best we could, our bathing beaches. There is no bathing in the Hudson or East Rivers, nor can there be.

Of course, any flow of sewage into our waterways is to be regretted -- or rather is to be avoided if possible. But pollution was not discovered yesterday. It has been with us a long time. Nor can it be cleared up as quickly as a newspaper headline can be set into type.

We in New York City have under current construction plant capacity for an additional 450 million gallons of sewage a day. This portion of our treatment plant construction program will be completed by the end of next year. That will bring our total treatment capacity to a point slightly in excess of our current average dry

weather flow of sewage.

Our plans provide for a further addition of 450 million gallons of treatment capacity, to be completed by 1971. All of these latter plants are in some stage of design. The North River Plant with a capacity of 221 million gallons a day has 50 percent of its final plans completed. Construction of this plant will begin next year.

The remaining plants are also, as I said, in various stages of design. Upon completion of this construction program we will have 18 plants capable of treating 1800 million gallons of sewage a day. That figure is the projection of flow for the year 2000, as estimated by our experts.

The total cost of this construction program will be about \$750 million. If this entire amount, including that which has been spent in past years, is translated into value terms of the dollar in 1965, our expenditure for sewage treatment plant has amounted to more than \$1 billion.

This is why we can say that New York City has done or is in the process of doing more, on a relative or proportionate scale -- or any scale you can set up -- than any other major community in this entire area, in

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the field of pollution control, through the treatment of sewage. No other major city in this area even approaches us either in terms of per capita expenditure or in the percentage of sewage under treatment now and projected for the measurable future.

Summarizing this phase of the matter, I want to point out that the early goal of our program is the construction of waste water treatment plants and intercepting sewers which will treat the entire dry weather discharge of sewers from all parts of the City.

Our Master Plan envisions a system of intercepting sewers conveying the sewage to 18 separate treatment plants strategically located throughout the City.

If I may name them, the 12 modern treatment plants which have already been constructed and are in operation are at Ward's Island, Coney Island, Tallman's Island, Bowery Bay, City Island, Hart's Island, Jamaica, the 26th Ward, Hunt's Point, Owl's Head, Rockaway, Port Richmond and Oakwood Beach.

The cost of construction for these plants has been \$408 million. The construction work now under way or immediately projected and scheduled to be completed by the end of next year -- with a capacity of 450 million gallons -- consists of a major new 300 million gallon

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plant at Newtown Creek and the expansion of facilities at Rockaway, Jamaica, Coney Island, Hunt's Point, Tallman's Island and Ward's Island.

The projects in planning, scheduled for completion by 1971, with a capacity for handling an additional 450 million gallons per day, will consist of the following:

North River

Hunt's Island Extension

Oakland Beach Extension

Port Richmond

Red Hook

Tottenville

Fresh Kills

City Island, and

Hart's Island Extension

This is a sketch of New York City's contribution -- present and projected -- to the control of water pollution in the Hudson and the other waters adjacent to our City.

I hope that all of you will agree that this is a most impressive record of performance and leadership in water pollution control through sewage treatment.

Now let us take a look at what help we have received from outside our own resources, to help us do

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what we have done and what we are doing in treatment plant construction. The fact is that we have received relatively minor assistance. Aid to New York City from the State has amounted to only \$4 million. Aid from the Federal Government has amounted to about \$2.4 million. Over the past eight years, the City has received only 1.8 percent of its capital expenditures from the State, and 1.1 percent from the Federal Government.

Of course, as I have already indicated, we hope that if the State Bond Issue is approved -- as I trust it will be -- we will benefit from the funds which will thus be made available and also from the new Federal funds -- including the specific \$50 million fund to which Senator Kennedy referred here yesterday.

However, as things are going now, New York City will have completed the preponderant part of its treatment plant program, just at the time that substantial State and Federal assistance become available. Thus, New York is apparently to be penalized for moving ahead aggressively in the fight against water pollution. Communities which have been much slower in moving on this vital front will now be assisted with State and Federal grants up to 60 percent of their total needs.

To remedy this inequity -- and also to meet

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a problem which affects all older cities -- I want to make six proposals.

1. I strongly urge that the formula for the State and Federal aid programs for water pollution control be reexamined and adjusted to give us credit for our past expenditures, so that we may have a greater State and Federal participation in the cost of the remaining portion of our program.

2. My second proposal, especially important for New York City, is for State and Federal assistance to be made available for the replacement of combined storm and sanitary sewers with separate sewer lines.

In support of this proposal, I point out that all the older cities have combined sewers which carry both sanitary sewage and storm waters. During heavy rainfall the major flow must be diverted from the treatment plant intakes directly into the discharge outlets leading into the stream.

At the time the main sections of the older cities were built and sewers laid, the construction of separate storm and sanitary systems had not been conceived. New York City was no exception to the rule. Consequently, much if not most of New York City is served by combined sewers. Thus, during each large rainstorm, untreated

sanitary sewage does reach our surrounding waters. These overflows do pollute the streams.

To meet this problem, two measures can be taken.

One is to replace combined sewers with separate sewers. This is a long and expensive undertaking.

The second course of action is to provide marginal treatment plants to prevent storm overflows from reaching surrounding water without adequate treatment.

Actually, under New York City's plan, both methods will be used in different areas.

In 1962, New York City reviewed its sewer policies and adopted a new policy of separate storm and sanitary sewers. All new sewers which have been built since 1962 have thus been built on this plan. Furthermore, wherever it has been practicable, when old combined sewers have had to be replaced, they have been replaced with separate sewers. But our greatest obstacle in pressing ahead with this program has been lack of funds. The cost is high.

Recently the Federal Government, the State Government and the Interstate Sanitation Commission have each strongly advocated the complete separation of sewer systems, to prevent the pollution resulting from the

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overflow of storm waters from combined sewers. Although these government entities have urgently made this recommendation, it has yet to be translated into national policy in terms of financial aid.

We in New York City want to replace our old combined sewers, but we need financial assistance for this, and we need it promptly.

Therefore -- and this is my 3rd proposal -- I strongly urge that both the Federal and State Governments make provision for assistance to the localities for separate sewers to replace combined sewers.

4. I urge also that Federal and State aid be made available for marginal treatment plants.

5. I urge that Federal and State aid be made available for trunk and main feeder sanitary sewer lines, as well as for interceptor sewers.

6. Finally, I suggest that the Federal and State Governments refuse in the future to provide aid for combined sewers.

I believe that such a modification of present policies will be of substantial assistance to New York City and, I believe, to other cities as well.

I strongly urge that this conference consider and indicate support for these forward steps. I am sure

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that if these modifications are made, there will be substantial benefits in terms of accelerated control over water pollution and the drastic reduction of the pollution of our precious, vital, flowing waterways, as well as oceanfronts.

I thank you for the courtesy of hearing me.

I submit to you for the record, and for such consideration as you wish to give it, a detailed statement prepared by the Interdepartmental Sewerage Council of the City of New York, reporting on the progress made in our sewage treatment plan.

I believe Dr. Connorton from the City Administrator's Office has that report available to submit to you.

On technical questions, we have Mr. Bradford Clark, our Commissioner of Public Works, here available.

MR. STEIN: Thank you very much, Mayor, for a very comprehensive statement.

(Applause.)

MR. STEIN: Sir, your suggestions are well taken, and, of course, these are the problems that ultimately will have to be solved by the Congress.

But I would like to make the record clear. I will say personally that I agree completely with most

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of your suggestions and views. However, the Congress did consider the question of financial aid for separation of sewerage, and the new bill just passed provides for a start on a demonstration issue.

The problem we had before the Congress was this, sir, and I think you can appreciate it:

Take New York alone, talking in terms of separation and the pipes you have, and compound that with other major large cities of the country. When we presented the bill to the Congress, they had a look at that, and shook their heads and said, "We would like to give you \$20 million to see if we can work out some demonstration project."

This is a notion of what the Federal policy is, so I think we are moving.

Again, as you can appreciate in your city here, the problem of whether you are going to go in for the complete separation, which will be very effective, or provide some kind of interception of treatment, which might be less expensive, translated into Federal expenditures, may result in savings of billions of dollars nationally.

Congress wants this experimental period and has given us \$20 million to try to work this out. We

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hope that New York City, among the other large cities, will participate with us. Hopefully, we will be on our way toward that. We recognize that is a very real problem in New York and some other large cities.

MAYOR WAGNER: Let's hope the experimental period doesn't take too long.

MR. STEIN: We hope so, that's right.

Let me say this here: We had this problem in Washington, D. C., where we are at the completion of a program to alleviate the storm water problem.

I don't think it was as great there as it is here, but the indication we got there was that it would cost \$300 million to separate the sewers. The price didn't stop an old Federal man like me very much, but we also got the advice that we would block the city's automobile traffic for the next fifteen years if we tried to do it, and the cure was worse than the disease.

So, what we came up with was a plan for a tremendous interceptor, amounting to \$70 million, which would cut the stormwater overflows way down.

They have about the same situation there, an estuary keeping the wastes, and we have cut that down. Hopefully, by next year we will cut that down to less than one percent and have that discharged at selected

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points.

I think what the Congress is looking for is the same that you are looking for, and that is a possible less expensive alternative to the proposition of digging up all the streets in the major cities of the United States and separating these sewers, and I hope we will come up with a reasonable and equitable way of moving into this program within the very near future.

Thank you.

MAYOR WAGNER: Thank you very much.

MR. STEIN: Does New York want to read the rest of their statement now, or just put it in the record?

MAYOR WAGNER: We will submit it for the record, if we may.

MR. STEIN: This will appear in the record as if read, without objection.

(The statement submitted by Mayor Robert F. Wagner is as follows:)

Mayor Robert F. Wagner

The City of New York
Interdepartmental Sewerage Council

STATEMENT ON THE STATUS OF
THE WATER POLLUTION CONTROL PROGRAM
FOR NEW YORK CITY

THE INTERDEPARTMENTAL SEWERAGE COUNCIL

John V. Connorton, Deputy Mayor and City Adminis-
trator, Chairman

Bradford N. Clark, Commissioner of Public Works

George James, Commissioner of Health

Newbold Morris, Commissioner of Parks

William F. Shea, Director of the Budget

William F. R. Ballard, Chairman, City Planning

Commission

Mayor Robert F. Wagner

The City of New York
INTERDEPARTMENTAL SEWERAGE COUNCIL
Progress Statement on
THE WATER POLLUTION CONTROL PROGRAM
for New York City
September 21, 1965

BASIC PROGRAM

The final goal of the basic program for water pollution control in New York City is the construction of waste water treatment plants and intercepting sewers which will treat the entire dry weather discharge of sewers from all parts of the City.

The current program for water pollution control in the City of New York can be traced back to 1931 when construction began at the Ward's Island sewage treatment plant. This program envisions a system of intercepting sewers conveying the sewage to 18 separate treatment plants scattered about the City (see attached map). At the present time the following 12 modern treatment plants have been constructed and are in operation: Ward's Island, Coney Island, Tallman's Island, Bowery Bay, City Island - Hart's Island, Jamaica, 26th Ward, Hunt's Point, Owl's

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Head, Rockaway, Port Richmond and Oakwood Beach.

The normal daily sewage flow of the City of New York is about 1-1/4 billion gallons which is roughly equal to its normal daily water consumption. An average of over 800 million gallons per day (MGD) of waste water is now treated at the 12 operating plants. Ultimately, the 18 plants will have a design capacity of almost 1800 million gallons per day. This is about equal to the predicted water consumption in the City for the year 2000.

The cost of the program to date is \$408 million. Between 1931 and 1945, we constructed almost 500 MGD of plant capacity together with the intercepting sewers at a cost of \$67 million. From 1948 to 1957, under the consent order of the Interstate Sanitation Commission, the City constructed 400 MGD of additional capacity at a cost of \$117 million. That completed the first stage of our program. Table I shows the location, capacities and cost of the various projects involved in the first stage of construction in its two phases: 1931-1945 and 1948-1957.

(Table I is as follows:)

TABLE I1931-1945

<u>Project</u>	<u>Capacity MGD</u>	<u>Cost In Dollars</u>
Wards Island	220	32,000,000
Coney Island		
(a) 1st Stage	35	2,100,000
(b) 2nd Stage	35	4,000,000
Tallmans Island	40	5,700,000
Bowery Bay	40	5,400,000
City Island-Harts Island	1.5	700,000
Jamaica	65	7,000,000
26th Ward	60	
1st Stage (Primary)		3,000,000
2nd Stage (Secondary)		<u>6,600,000</u>
Total . . .	496.5	66,500,000

1948-1957

Hunts Point	120	26,100,000
Owls Head	160	21,500,000
Rockaway	15	7,000,000
Port Richmond	10	3,200,000
Bowery Bay Ext.	80	46,750,000
Oakwood Beach	15	7,800,000
Whitestone Interceptor		
Collector - Tallmans Island		2,500,000
Wards Island - East Bronx Interc.		1,400,000
Hunts Point - 2 Pumping Stations		<u>600,000</u>
Total . . .	400	116,850,000

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In 1958 the second and final stage began; and it is in this phase that we are engaged at the present time. From 1958 to the present we have placed under construction or completed an additional 450 MGD of capacity at a cost of \$223 million. This work consists of the Newtown Creek project and expansion of facilities at the following locations: Rockaway, Jamaica, Coney Island, Hunt's Point, Tallman's Island and Ward's Island, all as shown in Table II. Most of these expansions were necessitated prior to initial work at other locations because of rapidly shifting populations from one part of the City to another. There remains, therefore, a balance of 450 MGD of plant capacity, estimated to cost \$290 million to complete the basic program. This remaining work consists of projects whose capacity and cost are listed in Table III as follows: North River, Ward's Island Extension, Oakwood Beach Extension, Port Richmond Extension, Bloomfield, Red Hook, Tottenville, Fresh Kills, Tallman's Island 3rd Stage and City Island - Hart's Island Extension.

(Tables II and III are as follows:)

TABLE II1958-1965

<u>Project</u>	<u>Additional Capacity in MGD</u>	<u>Cost in Dollars</u>	<u>Remarks</u>
Rockaway Extension	15	6,366,500	Completed - 1961
Jamaica Extension	35	18,653,000	Substantially completed - 1965
Coney Island (3rd Stage)	40	14,959,000	" " - 1964
Hunts Point Extension	30	7,655,000	Completed - 1965
Tallmans Island (2nd Stage)	20	6,454,000	Substantially completed - 1964
Newtown Creek	310	165,235,568	Scheduled for completion by end of 1966
Wards Island Ext.			
Riverdale Marble Hill 1st Stage		2,500,000	Scheduled for completion -
" " " 2nd Stage		<u>1,500,000</u>	1966
Total	450	223,323,068	

TABLE III
Future Work

<u>Project</u>	<u>Additional Capacity in MGD</u>	<u>Cost in Dollars</u>	<u>Remarks</u>
North River	220	125,368,500	Under final design
Wards Island Ext.	70	39,937,912	Plant Preliminary Design
Oakwood Beach Ext.	15	27,719,394	substantially completed
Port Richmond	50	33,347,000	Preliminary design of
Bloomfield	—	5,044,000	interceptor completed
Red Hook	50	33,944,000	Under preliminary design
Tottenville	6	3,950,000	" " "
Fresh Kills	10	10,770,000	Studies under way
Tallmans Island			" " "
(3rd Stage)	20	6,454,000	Studies about to start
City Island-Hart Island Ext.	<u>1.5</u>	<u>3,000,000</u>	After 1971 (when needed)
	442.5	289,534,806	Studies about to start

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The costs enumerated above total approximately \$700 million. If we add to this the expected reconstruction and improvements at the treatment plants, the grand total cost for the basic water pollution control program in the City amounts to approximately \$750 million at various dollar values. The current value would probably exceed one billion dollars.

It should be pointed out that of the \$223 million that the City has authorized in this program over the past eight years, as outlined in Table II, State Aid has been approved in a total amount of approximately \$4 million, and Federal Aid of approximately \$2.4 million. Thus the percentages of State and Federal Aid to the City's program have been 1.8% and 1.1% respectively.

In a matter of five or six years the basic water pollution control program for the entire City of New York should be completed. The remaining work comes under various projects as hereinafter described.

WARD'S ISLAND

The entire tributary area of the Ward's Island plant is presently intercepted except for a section in Riverdale along the Hudson River. Pumping Stations, Force Mains and Interceptors to convey the flow

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from this area to the Ward's Island Plant are now under construction. The plant will require ultimate enlargement from 220 to 290 MGD of capacity. A comprehensive study including preliminary plans for this expansion has already been prepared.

NEWTOWN CREEK

This 310 MGD capacity high-rate activated sludge plant is in an advanced stage of construction. The project involves a whole network of intercepting sewers and one off-site pumping station. The tributary area includes the lower portion of Manhattan, a large area in the Borough of Brooklyn and a smaller area in the Borough of Queens. It is anticipated that the plant will be completed by the end of 1966 to take initial flow from the Boroughs of Brooklyn and Queens with the added contribution from Manhattan following approximately a year later.

NORTH RIVER

This 220 MGD short-period aeration plant is in its final design stages. The plant will treat the waste water presently discharging into the Hudson River from Bank Street to the Harlem River. The first contract for intercepting sewers has been completed and construction

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will be under way probably within a period of 3 or 4 months.

RED HOOK

This 50 MGD plant will provide secondary treatment of waste water now being discharged into the Upper Bay and Lower East River from an area in Brooklyn extending from the Gowanus Canal to the Brooklyn Navy Yard. Preliminary plans for the North Branch Intercepting Sewer have been completed. Layout studies have been made for a plant site which is in the process of acquisition.

PORT RICHMOND

It is planned to expand the small primary treatment plant at this location to one that will be able to give secondary treatment to 60 MGD of sewage originating from along the Upper Bay and the Kill Van Kull from the Narrows to Port Ivory. A comprehensive study for this area has been substantially completed. Contract plans to extend the existing West Branch Interceptor from Nicholas Avenue to Port Ivory will be completed within the next six months.

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BLOOMFIELD

Our studies indicate that we will not construct a treatment plant in the Bloomfield area of Staten Island for some time to come. The waters of the Arthur Kill are in very poor condition, making it preferable to pump Bloomfield sewage to Port Richmond for treatment. Whether or not it ever becomes necessary to build a plant on the Arthur Kill will depend primarily upon the future growth of population.

OAKWOOD BEACH

The existing plant is located in the Great Kills Park and presently serves a large area to the east of the plant and a small area to the west. Ultimately it will serve the entire area along the South Shore of Staten Island from the Narrows to Princes Bay and as far inland as Eltingville. Preliminary plans for the West Branch Intercepting Sewer have been completed, surveys are well advanced, and the preparation of final plans is about to commence.

TOTTENVILLE

It is proposed to construct a secondary type of treatment plant of a capacity of 6 MGD to serve the

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southwesterly tip of Staten Island from Princes Bay to the Outerbridge Crossing. This area is of great concern because of the recent classification of the waters of Raritan Bay for shell fishing. A comprehensive study of the area is approximately 50% completed. Contract plans will be processed as quickly as possible in view of the increased interest in this particular area.

FRESH KILLS

The last project to be constructed under the program will consist of a secondary type of treatment plant of a capacity of 10 MGD serving an area of Staten Island along the Arthur Kill from the Outerbridge Crossing to the Fresh Kills. The State has recently approved consulting services for a comprehensive study of this area which will commence in the very near future.

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Financing through the City's capital budget augmented to the extent indicated by State and Federal aid has enabled the program to advance rapidly. Current budget requests by the Department of Public Works anticipate granting of the necessary funds, particularly in view of the present efforts to greatly increase State aid and to increase Federal aid in some degree.

Mayer Robert F. Wagner

MARGINAL or AUXILIARY PROGRAM

The basic pollution control program, previously described, is designed to cope with gross sewage pollution. The marginal or auxiliary program is designed to provide the additional protection needed to ensure safe bathing at the City's beaches. Since much of the sewer system is of the combined type, it becomes necessary to either treat the combined overflows in time of storm or to separate the storm water and the domestic sewage flows. In most areas the former method is easier and less costly.

The initial part of the auxiliary program covering mainly Jamaica Bay and Eastchester Bay will cost almost \$150 million of which nearly \$30 million are already authorized. Subsequent work for the Upper East River and other areas may add as much as \$100 million to the auxiliary system, depending on which alternate scheme is followed.

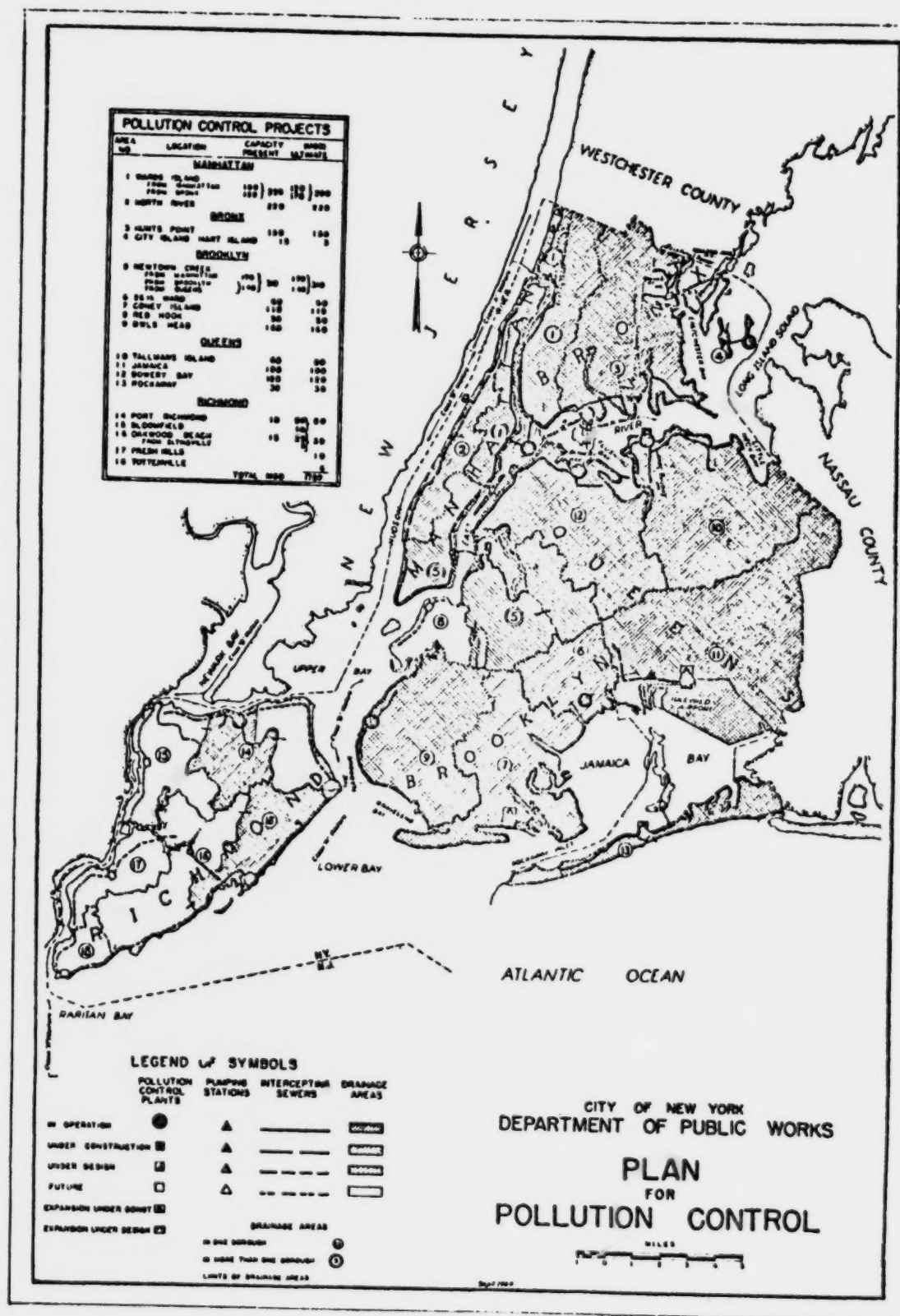
SEWER PROGRAM

Another program in which the City is engaged is the construction and reconstruction of local lateral and trunk sewers throughout the five boroughs and an initial effort to separate combined sewers. The Interdepart-

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mental Sewerage Council is studying the future sewer needs of the City and has developed recommendations for carrying out a twenty year program to provide complete storm and sanitary sewerage for the entire City population. The City has thus far been able to appropriate money for sewers at a rate of up to \$38 million per year. A study of the various ways of financing an accelerated sewer program has been undertaken by this Council.

(The map attached to the report is
as follows:)



MR. STEIN: At this point, we would like to call on the Interstate Sanitation Commission for a statement.

MR. GLENN: Mr. Chairman, I would like to have our Chairman, Dr. Natale Colosi, present the statement at this time.

MR. STEIN: Dr. Colosi.

Natale Colosi

STATEMENT OF DR. NATALE COLOSI,
CHAIRMAN, INTERSTATE SANITATION
COMMISSION

DR. COLOSI: Mr. Chairman, ladies and gentlemen:

My name is Natale Colosi. I am Professor of Bacteriology and Public Health at Wagner College at the New York Polyclinic Medical School.

I am here in my capacity as Chairman of the Interstate Sanitation Commission.

The Interstate Sanitation Commission was created by compact between New York, New Jersey and Connecticut for the abatement of existing and the control of future pollution of the waters of the New York Metropolitan Area. We understand that this conference is to consider the following areas: Newark Bay, Kill Van Kull, East River, Harlem River, and that portion of the Hudson River starting at the Narrows and extending up to the head of navigation at the lock in Troy, New York.

The Interstate Sanitation District extends to Bear Mountain Bridge on the Hudson River. From this point to Albany there is approximately one hundred miles

Natale Colosi

of the Conference area wholly in the State of New York and outside of our District. Consequently, remarks of the Commission will be confined to the southern third of the Conference area.

A further restriction on the scope of this statement is indicated by the fact that the Commission shares jurisdiction over the New York portion of its District with the State of New York, and the New Jersey portion with that State.

The Commission would like to state that it has received excellent cooperation from the States in our pollution abatement activities. Since both the States of New York and New Jersey are participants in the Commission and in this Conference, we will make only such references to the activities of the two States as are necessary to make our program clear.

In order to evaluate the condition of the waters between Bear Mountain Bridge and the sea, it is necessary to comment on the nature of the area involved. Only against such a background can one properly assess the pollution problem and the progress being made by the various agencies and jurisdictions with responsibility for regulating water quality.

The area with which this statement deals is

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the Nation's most heavily populated and industrialized metropolitan complex. It presents all of the problems attendant upon congestion. All of these waters contain various percentages of sea water and cannot be used as a source for water supply. Consequently, judgments as to proper levels of water quality should recognize that no one will drink these waters, no matter what their quality. Pollution is to be measured against the uses which should be made of salt water in the heart of this urbanized area, most of which comprise the Nation's largest seaport.

All of the sanitary wastes originating in the New Jersey portion of the Conference area are receiving primary treatment at one of the nine sewage treatment plants in the area, with one significant exception. This exception is - the waste now being discharged through Peddie Ditch into Newark Bay. However, construction is now underway for the interception and diversion of this flow through one of the primary sewage treatment plants, and this project should be completed by the Spring of next year. These nine sewage treatment plants were designed to give primary treatment, which is a type of treatment capable of meeting the requirements for these waters, that are classified as Class "B."

Natale Colosi

Wastes from that part of New York State within the Conference area and under the jurisdiction of the Interstate Sanitation Commission may be considered as those originating from Rockland County, Westchester County and New York City. Practically all of the sanitary wastes in the Rockland-Westchester County area is receiving at least primary treatment, and chlorination during the recreational season. There are few sewers carrying untreated municipal and industrial wastes into this area of the Hudson River, and steps have already been taken for abatement of pollution from these sources either by the New York State Department of Health or the Interstate Sanitation Commission. The majority of the industries along the Hudson River discharge to existing treatment plants rather than providing separate treatment of their wastes.

The section of the Hudson River receiving wastes from Rockland and Westchester Counties is classified as Class "A" by the Interstate Sanitation Commission. This is the higher of the two classifications utilized by this agency. Our plant sampling program indicated that the existing primary treatment plants in these two counties, in most cases, have difficulty in consistently meeting the requirements of the Commission and those of

Natale Colosi

the New York State Department of Health.

During the early part of 1964, this problem was discussed by representatives of New York State and the Commission, and, subsequently, a policy was set by the New York State Department of Health requiring all new sewage treatment plants or those existing plants undergoing modifications and expansions to provide a minimum of high rate activated sludge-type of treatment.

Due to this action, the Town of Orangetown is preparing plans for providing secondary treatment for all its wastes, and this construction will begin during the Spring of next year. Rather than provide its own treatment plant, the Village of Piermont elected to construct a pump station and force main to the Orangetown plant, and this construction is underway at the present time. Enforcement steps were taken by the Commission, in cooperation with the New York State Department of Health, in 1964 to upgrade the treatment plant of the Village of South Nyack from primary to secondary. The Village requested State funds to determine whether to build a regional system with Nyack, Upper Nyack and Grandview, or to construct its own facilities. This study is underway at the present time.

In August of this year, a policy statement

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was issued by the New York State Department of Health requiring secondary treatment and chlorination for all the treatment plants discharging into our Class "A" and "B" waters. Thus, all of the primary plants along the Hudson River will be required to upgrade the degree of their treatment to conform with these new requirements.

The third source of waste from New York State affecting the Interstate Sanitation District is New York City. The large flows of raw sewage from parts of New York City have been the most massive problem for satisfactory water quality in a large portion of our District. In 1957, when the Interstate Sanitation Commission took a consent order against New York City, it was thought that an expenditure of approximately \$220,000,000 would suffice to build facilities to secure secondary treatment for all of the City's raw discharges of wastes. The consent order has required New York City to spend roughly one-tenth of this total amount each year, with the goal of completing the system by the end of 1967. The order also required a schedule of construction, regardless of the levels of expenditure.

In any event, a variety of factors have caused a marked graduation of these cost estimates. An amount in excess of this original projected cost has already been

Natale Colosi

spent. By the time the system is completed, expenditures under the consent order will be approximately a half a billion dollars. Over \$30,000,000 has already been appropriated for the North River Project, and the start of construction on the intercepting sewers is awaiting completion of the design by the consulting engineers. Construction will start during January or February of next year. During this entire period, the Interstate Sanitation Commission has considered its task as one to keep the construction moving despite legal and technical delays.

In recent years, New York City has averaged over twice the minimum requirement of \$22,000,000 annually, and the budget request for the New York City Department of Public Works for the fiscal year 1966-67 is approximately \$150,000,000. New York City has made a total commitment of \$223,000,000 toward the construction of new facilities since the Federal Construction Grant Program was started. However, due to limitations on Federal construction grants, the City has only received \$2,438,000 from Federal funds, which is approximately one percent of the total cost.

The largest project under the consent order is the Newtown Creek Pollution Control Project, which will provide secondary treatment for approximately 300 million

Natale Colosi

gallons a day of raw sewage and will improve considerably the quality of the Upper New York Harbor area, and the waters passing through the Narrows and carried by the tides up the Hudson River. This project has been under construction for several years. It will be completed in the latter part of 1966 at a total cost of \$165,000,000.

The Commission, in conjunction with the States, has issued a strong statement requiring chlorination of all sewage discharges in the Upper Harbor, Kill Van Kull, lower East River and the Hudson River by the Summer of 1967. The year 1967 was selected as the starting time of chlorination, as it will be the first bathing season following the completion of the large sewage treatment plant at Newtown Creek.

Unfortunately, most of the older and larger urbanized areas of the United States, as Mayor Wagner has stated, have combined sewers. New York City is no exception. During times of rain, the greater portion of the raw wastes will be discharged into the waterways, even after the construction of interceptors and treatment plants has been completed. New York City is attempting to employ methods of storm water treatment for some of its combined sewers, but the magnitude of the problem in that portion of the area defined as the subject of this

Natale Colosi

Conference is so great that the method now being tried does not appear applicable to it. Without truly large scale research and the devising of methods for storm water treatment not now known, it seems that the only way to solve this problem is complete separation of sanitary and storm water sewers. The lowest estimate for such a project in New York City, without making any allowance for steadily increasing construction costs, is four billion dollars. This does not include the cities in New Jersey which also have combined sewers.

The most obvious hope for a sufficiently large attack on this research problem is presented by the pending Public Health Service Comprehensive Study, which is programmed to cover the entire Conference area. Since the practical effect of determinations already made for the largest part of the Conference area will be to require secondary treatment, we recommend that greatest emphasis and largest allocation of personnel and funds in the Public Health Service Comprehensive Study be for applied research and experimentation on the combined sewer problem.

Within our portion of the Conference area, the evidence supports the proposition that with the treatment plants already completed, projects under construction,

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projects on the design board with construction to begin within a few months, and with the upgrading of treatment from primary to secondary, we firmly believe that by 1970 the levels of water quality sufficient to support the best usages will be achieved.

Mr. Chairman, we would like to take this opportunity to reassure the U. S. Public Health Service, as the agent for the Federal Government, that the Interstate Sanitation Commission is sincere in its efforts and determination to achieve adequate treatment of the waste discharges under its jurisdiction. We would like to call the Chairman's attention to the fact that this Commission does not like to utilize the heavy legal hand it possesses unless it becomes necessary. However, this Commission has issued some 58 orders and has had 11 court cases, all of which resulted in court orders which were favorable to this Commission. The Commission will not hesitate in the future to take the required legal action if this is believed to be the most expeditious means of obtaining the necessary abatement.

Thank you.

MR. STEIN: Thank you, Dr. Colosi.

(Applause.)

MR. STEIN: Are there any comments or questions?

(No response.)

MR. STEIN: If not, does the Interstate Sanitation Commission have anything further?

MR. GLENN: No.

MR. STEIN: I think at the present stage we probably have completed the Federal portion, the Interstate Sanitation Commission portion, and the New Jersey portion of the presentation.

From now on, we will have the New York State portion of the presentation.

However, before we do, we will stand recessed for ten minutes.

(After a short recess.)

MR. STEIN: May we reconvene?

At this point we are going to call on New York State. Our schedule calls for New York State and its invitees to make their presentations. I have spoken to Mr. Hennigan, the New York State conferee, who will lead off for New York State. We will try to adjourn for lunch as close to noon as is reasonably feasible.

With that, we would like to call on Mr. Hennigan from New York State.

Robert D. Hennigan

STATEMENT OF ROBERT D. HENNIGAN,
CONFEREES, AND DIRECTOR, BUREAU OF
WATER RESOURCE SERVICES, NEW YORK
STATE DEPARTMENT OF HEALTH

MR. HENNIGAN: Mr. Stein, fellow conferees,
ladies and gentlemen:

After all the excellent statements which
have been made by the people from New York State, includ-
ing the Governor, the commissioners and the various local
officials, my appearance here is kind of anticlimactic,
I guess.

I ran into a friend of mine in the Public
Health Service yesterday, and he said to me, "You're
doing swell. You haven't opened your mouth."

(Laughter.)

Maybe I should continue to follow his advice.

Mr. Chairman, I have a report here entitled
"Report on the Status of Water Pollution Control Activities -
The Hudson River and its Tributaries," prepared by the
New York State Department of Health, and I would request
that it be put into the record as if completely read.
What I intend to do is to hit some of the highlights.

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MR. STEIN: Without objection, this will be done.

MR. HENNIGAN: Incidentally, copies of this report are available if other people would like to have them.

MR. STEIN: This insertion will include the charts and the maps.

MR. HENNIGAN: Thank you.

My name is Robert D. Hennigan; I am Director of the Bureau of Water Resource Services of the New York State Department of Health. The Bureau is responsible for developing and carrying out the State's water quality management program as promulgated by State Law, and policy determinations of the Governor, the Water Resources Commission, and the Commissioner of Health.

Let me begin by stating that the Hudson River is polluted by raw or inadequately treated wastes. The Public Health Service report states this. The State Health Department report states this; and we have heard this from everyone who has thus far appeared at this conference. Any further statements that the Hudson River is polluted would just add to the redundancy.

The people of the State, the legislature, and the executive branch are aware of the river's condition.

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This is why we have received the directive in the form of New York's Pure Waters Program to proceed immediately with the clean-up.

I have made this point in as direct a manner as possible, because I want to focus attention on the main purpose of this conference. The main purpose of the conference, as far as New York State is concerned, is to facilitate pollution abatement by means of a Federal-State-local partnership. This partnership is necessary, for, as far as we know, no single level of government has the ability to do the job alone, and no single level of government for that matter has the authority to accomplish the task single-handedly. It can only be done by a joint effort.

Therefore, we welcome this opportunity to meet with representatives of the Federal Government, our neighboring State of New Jersey, and the Interstate Sanitation Commission. Officially conferring here are two levels of government, and it will be the State's obligation to transmit the efforts and findings to the third-partner units of local government. It is the local governments who carry the major responsibilities, for they must initiate the action, have engineering plans prepared, construct works, and finance their operations.

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The giant share of pollution in the Hudson River Drainage Basin is caused by municipalities; most industries are connected to existing municipal sewerage systems.

We are in the rather awkward position of representing local government, the polluter in this instance, and at the same time the regulatory effort to insure that local government abates pollution. What do they intend to do? What are some of their problems? The State has proposed a program that will abate pollution that recognizes the needs of local government for financial and technical assistance.

Each level of government must carry out its portion of the task in accordance with its own unique abilities. Our purpose must be to facilitate pollution abatement by means of a Federal-State-local partnership. This conference will be successful if it defines responsibilities, promotes intergovernmental cooperation and facilitates practical, economic and efficient methods by which our common goal may be achieved.

Governor Rockefeller and Commissioners Ingraham and Wilm have already spoken to you and presented the broad State position and policy on water resources control and water quality management.

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In our report to the conferees, we have further outlined the New York State Program. It may be divided into three major parts. These are:

1. A comprehensive study program to make possible where indicated, the efficiencies of present and future intermunicipal action.
2. A realistic program of fiscal incentives including direct construction and operation grants for municipalities and tax relief for industries constructing waste treatment facilities.
3. Rigid enforcement of pollution control laws.

To these, we have added adequate technical staffing and necessary enabling legislation. We are pursuing our tasks enthusiastically and are convinced that the people of the State of New York will give overwhelming approval of the Pure Waters Program this November.

It is easy to fall into the trap that effective water pollution control is purely a technical problem. Studies are carried out, delineating the sources of waste, their effect on receiving waters, and the physical, bacteriological, chemical and hydrological factors involved. Conclusions are reached and recommendations are made.

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What then?

At that point, other factors come into play; they are the social, legal, political and economic factors which are as fully important as the technical determinations. This is why we emphasize the Federal-State and local partnership approach. For only by exploitation of the abilities of all partners can we maximize the effort to rapidly and efficiently abate water pollution.

Let me now turn to our report.

Previous speakers have gone into great detail focusing on the Bond Issue which is coming up in November. As you know, this is a referendum taken to the people of the State of New York, to ask them their opinion on what role the State should play to effect water pollution control.

It is more than money, actually. The people must give some indication that they believe the State should carry out an effective program, because I think we have to face the fact that it is only lately that the political support and public opinion appear to be in harness on this whole question of water pollution control and abatement. In the past, such meaningful support has not been totally lacking, but it hasn't been very strong, to say the least.

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One question that people frequently raise is, what are you going to do if the bond issue is defeated as far as State activities are concerned?

My answer to that is we don't like to entertain that idea. That is speculation. But I think it is also true that every indication is that the people of the State of New York will probably pass this money issue, and probably by a larger vote than any one has ever been passed in the past history of the State.

I also think the point is made that in terms of Federal participation, going back over the history of the Federal Water Pollution Control Act, starting in 1948 and up to the 1965 Amendment, it is my personal opinion, because of the national interest in this whole question, that we can look forward in the future to see the interest of the Federal Government expanded in this area.

I am convinced that the \$150 million that was recently authorized for the new 1965 Act, in four or five years is going to grow to a much larger amount than \$150 million. I think we are really just beginning to get started in this whole question of Federal-State cooperation in meeting water pollution needs.

One point I would like to make is that there are many elements of this Pure Water Program, and I don't

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intend to go into them in detail. The bills were all signed on May 12th of 1965. They all went into effect, except for the enforcement provision, which started on September 1st, 1965. Of course, the construction grant feature which became operable May 12th is dependent upon the approval by the people in November of this year.

So actually the Pure Waters Program in the State has started. You have heard mentioned some of the things that have been done.

We have started enforcement proceedings against some 34 municipalities and industries, which reflects an indication of a change in attitude and a change in scope of the State program. If somebody cares to look at the record, I think they will find that this is probably more legal action which has been taken in the past two months than took place in the previous sixteen years.

There is another point I would like to emphasize. This represents, in terms of New York State, a real departure and a really new approach in terms of the whole question of effective water quality control and pollution abatement.

You have heard our hearings cited as being five and ten minutes long -- and I have heard some other times, seven minutes and twelve minutes, depending on how

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long the people took to straighten their ties, I guess -- but the reason for these short hearings I would like to explain to you, and that is that these hearings in question were stipulated hearings, which means that the people had prior agreements, had reached a fact agreement and schedules of abatement, so the hearing consisted of opening the hearing, citing the official notices, the official designation of the hearing officer, the entering of a stipulation into the record, and that ended the hearing.

As a matter of policy and practice, we intend to probably carry out as many of these hearings as possible on the stipulation procedure.

The fact that most of these people are willing to enter into this type of agreement and put themselves under a legal mandate I think is an indication of the attitude of both the industries and municipalities in the State, and a recognition that the State has embarked on a program which it intends to see through. These municipalities and industries have recognized this, and have made this recognition meaningful by agreeing to the stipulations.

This is not an easy step, as you know, because once you stipulate and you agree to this you have given up your right of appeal, as far as the pollution abatement

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proceedings are carried out.

The major parts of this program that are operable include the operation and maintenance portion of the program.

Municipalities are now submitting applications, and some have been approved subject to State scrutiny, meeting very definite standards for the operation of treatment facilities.

It has been our experience that the planning and the construction of treatment facilities is just the beginning of an effective pollution abatement program. Unfortunately, moneys sometimes are not available for the construction of facilities, and sometimes not very available for their operation.

We want to complete this package from the planning through the operation, and this is the reason for the development and now the operation of the operation and maintenance program.

The City of New York is submitting an application to the State on the operation of their facilities, in which the total eligible cost will amount to some \$10 million or more, which means if they meet the standards they will receive State assistance for the fiscal year of between 3 and \$4 million.

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The comprehensive sewer study, which is the State program to allow municipalities to study their problems and come up with the most economical solution, is operable throughout this whole Hudson Valley.

The industry incentive part of the program is applicable, and applications are now being accepted.

The water quality management program is in operation, and proves to be of some use in the evaluation of the application of the City of New York for State water at Chelsea.

The research private program is underway, and you have heard about the enforcement actions.

There has been some supplementary activity. One was the decision by the Water Resources Commission to reclassify streams, which eliminates for all practical purposes classification from the State system.

You have also heard reference made to the upgraded treatment requirements which have been put out in a policy statement by the department, and, in addition to this -- and some people are not aware of this -- at the last session of the legislature one bill was passed which prohibited the referendum in cities and villages under orders of the State Commissioner of Health or the court to construct these facilities. This was another

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break in this whole structure that we are building to meet this question of effective water pollution control.

Now let me go to the report.

This report was prepared to augment information assembled by the United States Public Health Service in preparation for a Federal enforcement conference on pollution of the Hudson River and its tributaries, to be conducted in New York City on September 28, 1965. The Public Health Service report, Pollution of the Hudson River and Its Tributaries - September 1965, dimensions the engineering and scientific aspects of the Hudson River pollution problem based, in the case of the New York State portion, on information provided by the New York State Department of Health, the Interstate Sanitation Commission and recent studies conducted by Federal agencies.

Since the purpose of the conference is to abate pollution, it is important to also discuss and review existing Federal, State and local abatement programs, legislation and financial considerations. Such review and discussion will provide constructive suggestions for the enhancement of existing programs and will assist in strengthening the Federal-State-local partnership now actively working for water pollution abatement.

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The material presented in this report, therefore, is intended to (1) review New York State's legislative, technical and administrative programs to abate pollution, and (2) provide additional technical information beyond that presented in the Public Health Service report.

PROGRAM IMPLEMENTATION REGARDING WASTE WATER TREATMENT
FACILITIES REQUIRED TO MEET THE SURFACE WATER QUALITY
OBJECTIVES OF THE STATE OF NEW YORK

I. Factors Associated with Program Development

The enactment of the water pollution control law (Act 12, PHL) in 1949 established the basic objective of the State, e.g., "to abate existing pollution and to prevent future pollution" by requiring the use of all known available methods of treatment.

Since that time, the State has experienced a continuous period of dynamic growth. This period has been marked by evolvement of a broadening State interest in water quality management. This evolving and expanding interest has been demonstrated by:

- (1) Constitutional and legal changes to make local government more responsible,

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flexible and responsive to increasing demands, particularly in the water quality management and water utility service areas which have taken place. Such changes have, in part, included:

- a. Sewer rental law
 - b. County charter government
 - c. Suburban town law
 - d. Intermunicipal cooperation
 - e. Intermunicipal survey committee
 - f. County water and sewer agencies
 - g. Home rule amendment
- (2) Reorganization of State government in the water resources field and the establishment of a Water Resources Commission.
 - (3) Initiation of a comprehensive water resources planning program.
 - (4) Definition of the needs for sewage works by the Office for Local Government study in 1962, and resulting program recommendations.
 - (5) Numerous amendments to the water pollution control law so as to maintain pace with changing needs and conditions,

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particularly since 1962.

- (6) Enactment of the Comprehensive Water Supply and Sewer Works studies programs, underlining State concern with the organizational and fiscal aspects of sewer and water utility service in order that it be provided in an economical and timely manner.
- (7) Overwhelming citizen support of the constitutional amendment exempting sewage works from the municipal debt limit, approved by a 2 to 1 margin in 1963.
- (8) Establishment of coliform standards for specific water uses, and elimination of the referendum when municipalities are under an order of the Commissioner of Health or court to abate pollution, both enacted into law at the 1965 session of the Legislature.
- (9) Adoption of the "Pure Waters Program" during the 1965 session providing:
 - a. Massive construction grants
 - b. Operation and maintenance aid
 - c. Automatic water quality monitoring network

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- d. Industrial incentives
- e. Increased research
- f. Expanded comprehensive study activity
- g. Streamlined enforcement procedures
- h. Completion of construction of State institution facilities

Further evidence of expanding State interest has been the growth of interstate agency programs in water resource control and water quality management. This is shown by the establishment of the Delaware River Basin Commission in 1961, and the studies now under way concerning the establishment of a Susquehanna River Basin Commission.

Other interstate activities include the growing programs of agencies such as the Interstate Sanitation Commission, the Interstate Commission on Lake Champlain, New England Water Pollution Control Commission, Ohio River Valley Water Sanitation Commission, Great Lakes Commission, and the International Joint Commission on the boundary waters between Canada and the United States.

Contributing to the growing interest has been expanding population, increasing demands for water for all uses, particularly water supply and recreation, wide-

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spread use of insecticides, fertilizers and herbicides, and industrial growth, development and expansion.

An additional major element is the national interest as shown in the enactment of the Federal pollution abatement program in 1948 and the subsequent amendments in 1956, in 1961 and the changes now proposed.

The State water pollution law provides methods to abate existing pollution and to prevent new pollution, the first classifying waters according to their best social and economic use and establishing standards for each such use, the second by a plan review and permit system, both augmented by appropriate rules and regulations. The purpose being to eliminate and minimize pollution, not to use all the waters of the State for maximum waste loadings.

State concern is not limited to evaluation of proposals and their immediate effect; rather it involves future growth and development, the demands of a dynamic changing situation, the organizational and economic factors, and the total impact on over-all State water resource development and effective water quality management.

State responsibility also includes the added public health emphasis accorded public water supply, shellfish production and bathing waters.

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II. Program Implementation Concerning Treatment Facilities

In order to fully reflect the present State concern, the basic program of the State Department of Health concerning waste water treatment facilities is as follows:

A. General

- (1) Comprehensive utility studies, both water and sewer, are necessary in all major urban counties and in all other urban situations where intermunicipal action is indicated in order to provide facilities in an economical and timely manner. Such studies will usually be a prerequisite to receiving State construction grants.
- (2) Engineering studies are to be required in every city utilizing a combined sewer system in order to evolve a plan to minimize overflows, establish continuous surveillance and to provide treatment of such overflows where indicated.
- (3) Multiple treatment facilities and outlets are to be discouraged. When at

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all feasible, connections are to be made to existing sewer systems rather than creating new outlets. The basic assumption will be in favor of the sewer connections instead of additional outlets.

- (4) Outlets into lakes, impoundments, and ponds and their tributaries used principally for water supply and recreation will be discouraged in favor of trunk sewers to remove waste water from such watersheds to a treatment plant on the outlet stream where feasible.
- (5) Effects of waste water discharges into surface waters shall be evaluated on prospective condition 30 years in the future and based on a consecutive 7 day low flow with a return period of once every 50 years.
- (6) Outlets into intermittent streams with little or no flow during part of the year shall be discouraged, when absolutely necessary they will

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be preceded by tertiary treatment and chlorination.

B. Sewage

- (7) Outlets into surface waters covered by Rules and Regulations enacted by the New York State Commissioner of Health or the Commissioner of the Department of Water Supply, Gas & Electricity or the Board of Water Supply of New York City and all waters classified "AA" shall be discouraged, when absolutely necessary they will be preceded by tertiary treatment and chlorination.
- (8) Outlets into any stream or lake where there is a downstream or parallel water supply or shellfish use shall be preceded by continuous effective chlorination in addition to other treatment required.
- (9) Outlets into waters classified "A" shall be preceded by secondary treatment and continuous chlorination.
- (10) Outlets into water classified "B" shall

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be preceded by secondary treatment and seasonal chlorination from May 1st through October 1st of each year.

- (11) Outlets into waters classified "C" shall be preceded by secondary treatment.
- (12) Outlets into waters classified D, E, or F shall be preceded by primary treatment.
- (13) The stated treatment requirements are minimums. Individual evaluation of specific projects may require additional treatment to meet quality standards.
- (14) Downstream water use will control minimum requirements for treatment facilities. Treatment requirements for outlets into waters classified A, B, C, D, E, or F will be raised if necessary to protect a higher existing or future use downstream.

C. Industrial Wastes

- (15) Industrial wastes vary to a great degree; however, all such outlets will

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be preceded by treatment facilities which will produce effluents comparable to results from primary, secondary and tertiary treatment of sewage for outlets into classified waters as noted in items 5 through 14.

This means reduction of waste loadings by inplant control, treatment to remove floating and settleable solids, BOD reduction, disinfection, and reduction of all other pollutants to a degree consistent with existing and future water use, coupled with a continuous surveillance and control program.

III. Program Implementation

This program statement is augmented by the department through appropriate and detailed rules and regulations and bulletins.

When deemed appropriate by the Commissioner of Health, public hearings will be held to protect the public interest and to aid in evaluation of a comprehensive study or individual project.

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This program implementation applies to all new outlets, to all applications for renovations, additions or alterations, to all applicants for operation and maintenance assistance, to all applicants for State construction grants, and to all applications for a new or modified permit to discharge waste water.

A. Sewage Treatment Plant Operation and Maintenance Grant Program

The sewage treatment plant operation and maintenance program provides a further link in our partnership efforts with the municipalities of New York State to achieve optimum water quality. Under this program, municipalities of the State which properly operate treatment facilities are eligible for a grant equal to one-third of their direct operation and maintenance costs. This year approximately \$4,000,000 will be paid to eligible municipalities in the Hudson River Drainage Basin. The grant program acknowledges that any single treatment facility is not just of service to the operating community, but is also beneficial to the downstream users. Hence, the State assists municipalities to properly treat wastes by making a financial grant available. This grant program rewards those municipalities who have properly operated

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treatment facilities. Eight million dollars has been appropriated for the program this year.

A review of the specific operation and maintenance program purposes will demonstrate the program value. The purposes are as follows:

- (1) To increase the extent of the quality of the surveillance of the State Health Department over the operation of sewage treatment plants in the State.
- (2) To provide financial assistance to those municipalities who are properly operating sewage treatment plants.
- (3) To make available an administrative tool with which the State Health Department can provide effective leadership and assistance to municipalities, so that operational performance of sewage treatment plants is improved. (This item incidentally strengthens our partnership with you under your existing Federal construction grant program by insuring proper operation and maintenance of works constructed with the aid of a Federal grant.)

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- (4) To create an incentive to construct or expand sewage treatment facilities so as to provide adequate public sewage treatment facilities.

These purposes can be accomplished because grant eligibility is based on compliance with the following criteria:

- (1) Plant operation under the supervision of a treatment plant operator qualified as meeting the educational and experience requirements of the State Sanitary Code.
- (2) Proper plant operation including performance of required laboratory tests, the maintenance of operation and maintenance records, when possible evaluation of the effects of the plant discharge on receiving waters, and assurance that wastes from the area tributary to the plant actually reach the plant for treatment.
- (3) Evidence that the sewage treatment plant is constructed and operated in substantial compliance with the plans approved and the permit issued by the State Health

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Department.

- (4) The establishment and enforcement of a local sewer use ordinance.
- (5) Evidence that the plant discharge does not violate the stream classification enacted by the State Water Resources Commission.
- (6) All sewage and wastes originating in the area served are conducted to treatment facilities.

B. State Construction Grant Program

In order to further dimension our pollution control status and the development of our control program in New York State, some additional comment should be made about the State construction grant program. This program evolved as a natural sequence to our engineering and technical work. Governor Rockefeller and Commissioner Ingraham have discussed the program and have emphasized the financial aspects of the program with you this morning. It is also on the Federal record as the result of their appearances before congressional committees at Washington earlier this year.

We know that the State construction grant program will facilitate a tremendous acceleration in

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treatment plant construction and improvement. We know that municipalities rely upon the supply of grant moneys for construction purposes. A review of our records of treatment plant construction in New York State since the year 1890 shows that 58 percent of all construction took place in a seventeen year period. This period includes the WPA and present Public Law 660 tenure. We are all concerned with the fact that construction of necessary facilities in New York State is delayed because Federal grant funds are not adequate. The State construction grant program will remedy that situation.

The enabling legislation for State construction grants further carries out our joint responsibility - Federal and State - with local governments. Although in its initial phases the State will carry the giant share of the financial burden, the Federal Government is completely involved in each approved project. This has been accomplished by a section of the State Law (Section 1263a, paragraph 2, subdivision c, of the Public Health Law) which mandates that the local municipality apply for and make reasonable efforts to secure Federal assistance.

We appreciate the active assistance that representatives of your New York and Washington offices have given our staff in preparing for the administration

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of this program. It is clearly evident to us that the Public Health Service is prepared to join with us in the implementation of the program.

The proposed State construction grant program includes several safeguards which ensure that construction will comply with both State and Federal needs. The prior approval requirement by the Federal Government was mentioned earlier. This guarantees that the proposed works will be aligned with Federal requirements. Our State needs are met by the following requirements.

- (1) That a permit has been issued by the State Health Department for the discharge of wastes from the proposed treatment works.
- (2) That the proposed treatment facility is in accord with applicable comprehensive studies and reports made of regional and intermunicipal needs made under Section 1263a of the Public Health Law.
- (3) That the proposed treatment facility conforms with applicable rules and regulations of the State Health Department.
- (4) That the proposed treatment facility is necessary for the accomplishment of the

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State water pollution control program.

C. Industrial Incentives

Although not incorporated in the Public Health Law, you are acquainted with the fact that legislation has also been enacted in New York State this year which provides indirect financial assistance to industry for the construction of waste treatment facilities. This is accomplished by permitting a rapid depreciation of industrial waste treatment installations for corporate tax relief and exemption from real property taxes on treatment works. In order to take advantage of these programs industry must secure a certification that the waste treatment facilities have been constructed and are operated in a manner approved by the State Health Department. The Department is now receiving applications for such certification.

STAFF AND ADMINISTRATIVE DEVELOPMENT

As our water quality management programs have developed, the Department has given constant attention to staff development. Approval has been given for 102 new positions in the Bureau of Water Resource Services. These are necessary to carry out an accelerated State-wide assault

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on water pollution.

In the early phases of our study and classification programs we sometimes leaned heavily on the Public Health Service to carry out the original investigative tasks associated with the assessment of water pollution tasks. We will continue to rely on the Service to act as consultants and to provide answers to the pressing technical problems which exist. The proposed Hudson River study is an example of a technical service which will be of great value to the State and which will assist to determine ways to maximize future use of the Hudson River.

In addition to providing adequate staff, the Department has for several years conducted a program under which our new engineers are able to obtain masters degrees in sanitary engineering. Also, our lay personnel have taken advantage of advanced training courses offered by the Public Health Service and the colleges and universities of New York State.

COMPREHENSIVE SEWERAGE STUDIES

The Comprehensive Sewage Study and Report program was enacted by the 1962 Legislature and became effective upon signing by the Governor on April 4, 1962.

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Since becoming effective in 1962, the following funds have been appropriated:

Fiscal year beginning

April 1	Appropriation
1962	\$1,000,000
1963	1,500,000
1964	1,500,000
1965	5,000,000

Since the start of this program 55 contracts for studies have been executed with grants totalling \$3,838,852.64. Three additional contracts were in the process of being executed. The total cost of these contracts was \$86,357.40. At present we are negotiating 15 contracts for studies. The estimated cost of these contracts is approximately \$900,000.

The objectives of the Comprehensive Sewerage Studies are:

1. The determination of the logical and economical service area for a sewage disposal project.
2. The development of economical projects for the collection, treatment and disposal of sewage.
3. The development of basic plans so that

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any system may be enlarged so as to include contiguous urban areas as they are developed.

4. The preparation of reliable estimates of first costs and total annual costs for the construction, operation and maintenance of the recommended facilities.

Details of activities of this program within the Hudson River Drainage Basin follow.

COMPREHENSIVE SEWERAGE STUDIES COMPLETED OR UNDERWAY

Section 1263-a Public Health Law

Hudson River Drainage Basin

New York City

Wards Island	\$200,000
Port Richmond-Bloomfield	200,000
Tottenville	103,000

Westchester County

Ossining (V. and T)	12,500
Peekskill (C)	11,500
Briarcliff Manor (V)	14,500

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Rockland County

W. Haverstraw (V)	33,500
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Nyack (V)	26,700
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Orange County

Monroe (T)	35,000
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Ulster County

Ulster (T)	33,969
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Esopus (T)	32,350
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Dutchess County

Hyde Park (T)	6,900
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Rensselaer County

Sand Lake (T)	9,600
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Troy Metropolitan Area	114,728
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Albany County

Albany Metropolitan Area	<u>467,372</u>
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TOTAL	\$1,301,619
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HUDSON RIVER AND TRIBUTARIES

(Troy Dam to New York City Line)

Present Status of Defilement

Main Stream -

At the Troy Dam the Hudson River carries a significant residual pollution load from upstream sources. Municipal and industrial discharges in the Capital District grossly pollute the river causing complete degradation at and below the Albany area. A section of some fifty miles is affected and complete recovery does not take place until the river passes Saugerties near the northern Ulster County line. Below Saugerties to the New York City line the river is polluted in places. The river is not massively affected by this pollution as is the section below the Capital District. However, the section flowing through the New York Metropolitan Area is taking a continuing increasing amount of pollution because of the growth and expansion this area is experiencing. Tidal fluctuations with their attendant dispersal effects significantly affect this section.

Tributaries -

Major tributaries heavily polluted in the Albany area are the Krumkill, Patroon's Creek and Dry

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River. The Poestenkill and Wynantskill receive pollution in the vicinity of Troy. South of Albany, Coeymans Creek is heavily polluted at the Hamlet of Coeymans and below the Village of Ravena. Mill Creek at the City of Rensselaer receives pollution from the City's storm sewers. The Stonykill below Chatham and the Roeliff Jansen Kill near Ancram in Columbia County are polluted. The Moordener Creek is heavily polluted near its mouth at Castleton in Rensselaer County.

In Ulster County, Rondout Creek is polluted at the Hamlets of Rosendale and Kerhonkson. Moodna Creek at Salisbury Mills in Orange County is heavily polluted. Dickie Brook at Buchanan and Sing Sing Creek at Ossining in Westchester County are significantly polluted by industrial wastes. Minisceongo Creek in Rockland County receives wastes from State institutions and industries at Garnerville. There are a number of other tributaries in the basin affected by pollution but not in a major fashion.

Municipal Discharges

There are a total of 128 sources of municipal pollution of which 48 discharge to the main stream and 80 are on the tributaries. The heaviest population concentrations affect the main stream in the Capital District with a tributary population of 293,000 and the main stream

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in the Metropolitan Area with a tributary population of 556,000 located mainly in Westchester County. Tables listing all identified municipal discharges together with pertinent information on population, existing treatment and needed improvements are included in this report.

Institutional Discharges

There are a total of 29 discharges from Federal and State institutions of which 8 are on the main stream and 21 are located on the tributaries. None of these institutions by themselves grossly affect the waters except Minisceongo Creek in Rockland County. Institutional discharges with population or flow, present treatment and needed improvements are tabulated in this report.

Industrial Discharges

There are a total of 96 industrial sources located on the main stream and the tributaries. Paper industries contribute considerably to the pollution of the Hudson River in the Capital District. Other noteworthy industries are food processing, textiles, metals, chemicals and steel products scattered throughout the basin. A table showing all identified industrial sources characterized as to type, amount and treatment are included in this report.

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Corrective Action

Classification Program -

New York State Law requires that all waters of the State be duly studied and then classified according to the principle of best usage. Water quality standards have been established for all usages. In this connection all field studies have been completed and reports thereon published. The purpose of the field studies was to identify and evaluate pollution situations and develop recommended classifications and standards of water quality. Classifications have been adopted for the entire drainage basin.

Abatement Program

The following is a summary of the status of polluters identified in abatement plans adopted subsequent to classification.

	Total	<u>*Importance Category</u>		
		#1	#2	#3
1. Identified (Abatement Plan)	1		1	
2. Initial conference held	4	1	2	1
3. Schedule established	12	11	1	
4. Solution established via preliminary report approval (including special study)	3		3	
5. Final plans submitted and approved	6	2	4	
6. Under construction	1	1		
7. Completion of construction, installation of facilities or internal modifications	1		1	
8. Abatement partially achieved	14	2	10	2
9. Abatement achieved	<u>100</u>	<u>4</u>	<u>76</u>	<u>20</u>
Total	142	21	98	23

*Importance Category

1. Major importance - large polluter, key polluter, polluting substance highly toxic, sensitive receiving stream flow or quality-wise, i.e., City of Utica.
2. Normal importance - polluters between Categories 1 and 3.

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3. Minor importance - small polluter, large stream, low classification, minor pollutional impact on stream, i.e., small septic tank discharge to large stream.

Polluters identified in abatement plans to date total 142 of which 100 are considered abated for a percentage of 70%.

However, it should be pointed out that little has been accomplished in terms of actual construction in the major area of pollution - the Capital District. Therefore, an intensified enforcement program has been inaugurated. In addition, all discharges regardless of present status will be re-evaluated in terms of meeting the higher water quality standards and increased treatment requirements associated with the Pure Waters Program.

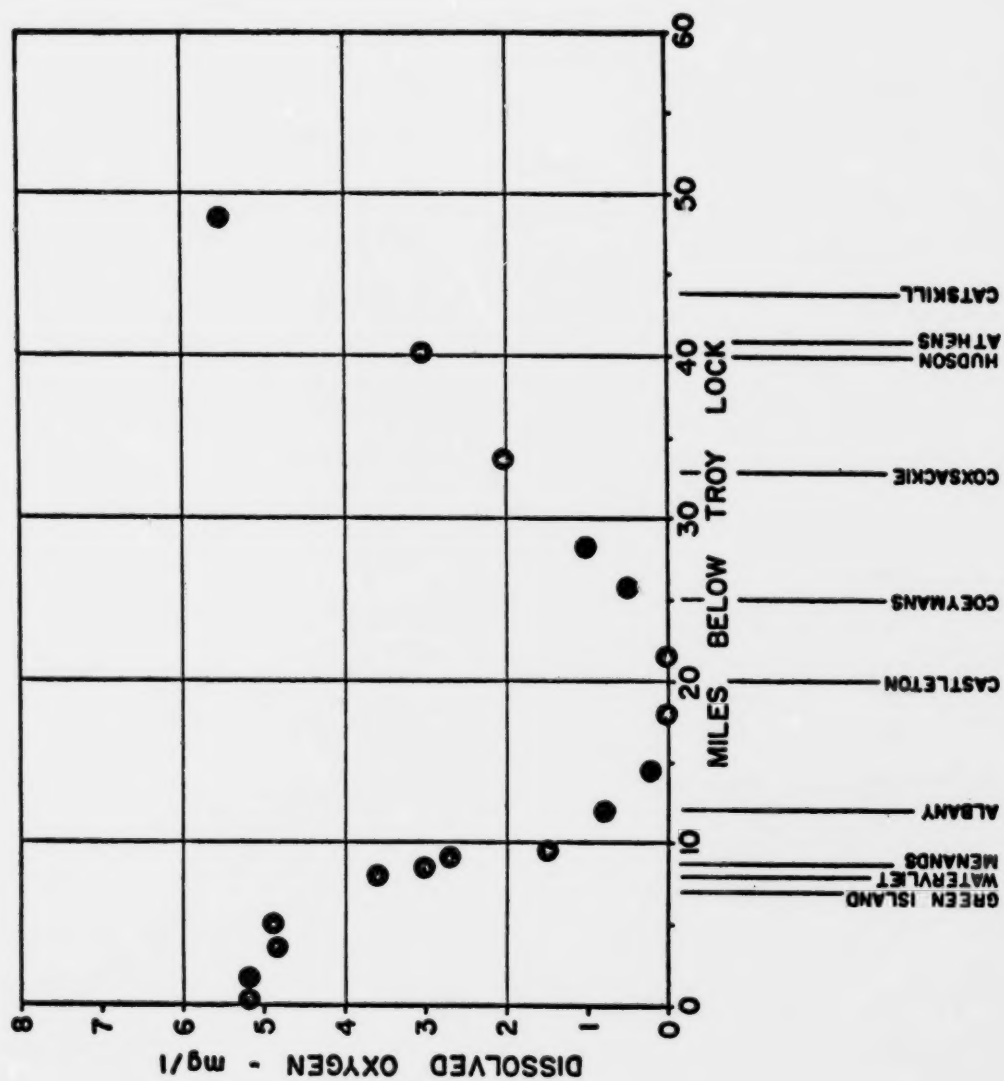
Enforcement Program - Legal Action

As part of the State's Pure Waters Program the Water Pollution Control Law was streamlined and simplified to facilitate enforcement. In concert with this, legal actions have been and will be initiated against all polluters in the basin. Within one year hearings will be scheduled, held, and Commissioner's Orders issued on all polluters in the basin. These Orders stipulate specific time schedules for corrective action. In support of this,

the Attorney General, charged with the enforcement of Commissioner's Orders, has created a new bureau with added staff to follow up on enforcement. A tabulation showing the legal action status of polluters in the drainage basin is included in this report. On a State-wide basis, top priority is being given to the lower Hudson in the scheduling of enforcement hearings.

HUDSON RIVER

AUGUST 25, 26 - 1964



Status of Current Legal Action
Hudson River Drainage Basin
(Chapter 180, Laws of 1965
Effective Date
September 1, 1965)

<u>Name</u>	<u>County</u>	<u>Commissioner's Hearing Held or Scheduled</u>
Albany (C)	Albany	9/21/65
Rensselaer (C)	Rensselaer	9/21/65
Castleton (V)	Rensselaer	9/23/65
Waterford (V)	Saratoga	9/24/65
Waterford (T)	Saratoga	9/24/65
Manning Paper Corp.	Albany	9/27/65
Cluett Peabody	Saratoga	9/27/65
Winthrop Laboratory	Rensselaer	9/28/65
General Aniline and Film	Rensselaer	9/28/65
Coxsackie (V)	Greene	9/30/65
Green Island (V)	Albany	10/65
Menands (V)	Albany	10/65
Watervliet (V)	Albany	10/65
Allegany Ludlum Corp.	Albany	10/65
Delaware-Hudson	Albany	10/65
Tobin Packing Company	Albany	10/65
Mohawk Paper Mills	Albany	10/65
Carr Packing Company	Albany	10/65
Fort Orange Paper Company	Albany	10/65
Behr-Manning Corp.	Albany	11/65
Cold Spring (V)	Putnam	11/65

HUDSON RIVER DRAINAGE BASIN

MUNICIPAL RAY DISCHARGES

COLUMBIA COUNTY

<u>Communities</u>		
<u>Name</u>	<u>Location</u>	<u>Population</u>
E. Chatham (H)	E. Chatham	200
Germantown (H)	Germantown	400
Valatie (V)	Valatie	1237
Philmont (V)	Philmont	1750
Hudson (C)	Hudson	11,075

PUTNAM COUNTY

Cold Spring Village	Cold Spring	2083
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ORANGE COUNTY

Newburgh City	Newburgh (C)	32,000
Slate Hill (H)	Wayanda (T)	75
Florida Village	Florida (V)	300
Washingtonville	Washingtonville (V)	800

SULLIVAN COUNTY

Mountaintale H.	Fallsburgh (T)	
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HUDSON RIVER DRAINAGE BASIN

MUNICIPAL RAW DISCHARGES

ULSTER COUNTY

<u>Name</u>	<u>Communities</u>	
	<u>Location</u>	<u>Population</u>
Rosendale Village	Rosendale (V)	
Kerhonkson H.	Wawarsing (T)	

GREENE COUNTY

West Coxsackie (H)	West Coxsackie	500
New Baltimore (H)	New Baltimore	100
Cairo (H)	Cairo	500
Cementon (H)	Cementon	700
Leeds (H)	Leeds	200
Coxsackie (V)	Coxsackie	2849
Catskill (V)	Catskill	5825
Athens (V)	Athens	1754

RENSSELAER COUNTY

Troy (C)	Troy	67,492
Pleasantdale (H)	Pleasantdale	840
Hemstreet Park (H)	Hemstreet Park	480

HUDSON RIVER DRAINAGE BASIN
MUNICIPAL RAW DISCHARGES

<u>Communities</u>		
<u>Name</u>	<u>Location</u>	<u>Population</u>
Averill Park (H)	Averill Park	711
Rensselaer (C)	Rensselaer	10,506
Castleton	Castleton	1,752
Hoosick Falls (V)	Hoosick Falls	4,023
Valley Falls (V)	Valley Falls	589
<u>ALBANY COUNTY</u>		
Cohoes (C)	Cohoes	20,129
Watervliet (C)	Watervliet	14,000
Albany (C)	Albany	16,000
Green Island (V)	Green Island	3,533
Menands (V)	Menands	2,314
Watervliet Arsenal	Watervliet	
McKownville (H)	McKownville	500
Coeymans (H)	Coeymans	854
West Albany S.D.	West Albany	550
Selkirk (H)	Selkirk	100

MUNICIPAL SEWAGE TREATMENT PLANTS
Hudson River Drainage Basin

LOCATION	PLANT NAME	YR BLT	TRIB POP	DESIGN FLOW	TREATMENT
<u>Albany</u>					
Albany C	Albany C	15	117,000	30,000,000	Primary : Imhoff*
Altamont V	Altamont V	58	1,300	400,000	Primary : Imhoff*
Bethlehem T	Dlmr Elsmr SD	58	10,000	1,600,000	Primary : Imhoff*
Bethlehem T	Sewer Dist. 1	51	70	7,000	Tertiary : Sand Filtration
Bethlehem T	So Albany H	25	70	10,000	Tertiary : Sand Filtration
Colonie T	Latham Sew D	63	7,000	770,000	Primary : Imhoff*
Colonie T	Al Schdy R SD	63	9,000	400,000	Secondary : Standard T.F.
Colonie T	Maplewood SD	26	2,500	100,000	Inadequate : Septic Tank*
Colonie T	Western Av SD	61	176	15,000	Secondary : Activated Sludge
Ravena V	Ravena V	15	2,424	210,000	Primary : Imhoff*
Watervliet C	Watervliet C	40	14,000	2,000,000	Primary : Sedimentation*
<u>Columbia</u>					
Chatham V	Chatham V	39	2,400	500,000	Secondary : Standard T.F.
Greenport T	Greenport SD 1	60	1,500	150,000	Primary : Imhoff*

* needs secondary treatment

LOCATION	PLANT NAME	YR BLT	TRIB POP	DESIGN FLOW	TREATMENT
<u>Dutchess</u>					
Beacon C	Beacon C	64	17,500	4,100,000	Primary : Sedimentation*
Fishkill T	Dutchess Park	60	400	300,000	Tertiary : Sand Filtration
Milbrook V	Milbrook V	32	1,260	150,000	Primary : Imhoff*
Poughkeepsie C	Poughkeepsie C	60	38,330	7,500,000	Primary : Sedimentation*
Poughkeepsie T	Arlington SD	59	6,155	1,000,000	Primary : Sedimentation*
Tivoli V	Tivoli V	39	750	100,000	Primary : Imhoff*
Wappingr Falls V	Wappingr Falls	60	3,500	800,000	Primary : Imhoff*
Wappingr T	Fltwd Mr Corp	61	250	60,000	Secondary : Activated Sludge
Wappinger T	L A Sew D Crp	64	270	100,000	Secondary : Activated Sludge
Wappinger T	Oakwd Knol SD	64	300	75,000	Secondary : Activated Sludge
<u>Orange</u>					
Blmg Grv T	Blomng Gr SD2	62	800	100,000	Secondary : Activated Sludge
Blmg Grv T	Wrlly Meryvold	65	4,250	425,000	Secondary : Activated Sludge
Blmg Grv T	Blomng Gr SD1	60	800	80,000	Secondary : Activated Sludge
Chester T	Chester SD 1	62	100	60,000	Secondary : Standard T.F.
Cornwall V	Cornwall V	38	2,000	240,000	Primary : Sedimentation*
Cornwall T	Cornwall SD 1	38	2,500	240,000	Primary : Sedimentation*
Goshen V	Goshen V	63	4,000	600,000	Primary : Sedimentation*

* needs secondary treatment

LOCATION	PLANT NAME	YR BLT	TRIB POP	DESIGN FLOW	TREATMENT
<u>Orange (con't)</u>					
Goshen T	Goshen SD 1	60	500	100,000	Secondary : Activated Sludge
Highland Falls V	Highland F Nor	61	4,469	1,000,000	Primary : Imhoff*
Highland Falls V	Highland Falls Sou	61	500	100,000	Primary : Imhoff*
Maybrook V	Maybrook V	37	1,348	180,000	Primary : Sedimentation*
Middletown C	Middletown C	51	23,475	4,250,000	Secondary : Standard T.F.
N Windsor T	N Windsor SD 12	63	6,250	625,000	Primary : Imhoff*
Newburgh T	Wintergren SD	53	210	20,000	Tertiary : Sand Filtration
Newburgh T	Colden Pk SD	56	615	130,000	Tertiary : Sand Filtration
Newburgh T	Algonquin S D	57	234	130,000	Secondary : Standard T.F.
Newburgh T	Gidneytown SD	63	1,200	120,000	Secondary : Activated Sludge
Walden V	Walden V	62	4,851	500,000	Primary : Sedimentation*
Wallkill T	Armchr Sew Co	63	1,200	120,000	Secondary : Activated Sludge
Warwick V	Warwick V	63	1,500	150,000	Primary : Imhoff*
Warwick T	Warwick S D 1	59	1,000	100,000	Secondary : Activated Sludge
<u>Putnam</u>					
Brewster V	Brewster V	54	500	20,000	Tertiary : Sand Filtration
Carmel T	Carmel S D 1	38	700	150,000	Tertiary : Sand Filtration

* needs secondary treatment

Hudson River, Page 4

LOCATION	PLANT NAME	YR BLT	TRIB POP	DESIGN FLOW	TREATMENT
<u>Rensselaer</u>					
E Greenbush T	E Greenbush SD	56	5,200	750,000	Primary : Sedimentation*
<u>Rockland</u>					
Clarkstn T	Valle Cot S D	56		100,000	Tertiary : Sand Filtration
Clarkstn T	Clarkstwn SD1	54	1,500	10,000	Tertiary : Sand Filtration
Clarkstn T	Clarkstwn SD6	61	120	15,000	Tertiary : Sand Filtration
Clarkstn T	Clarkstwn SD8	61	162	20,000	Secondary : Activated Sludge
Clarkstn T	Rock Co OF BD	59	100	10,000	Secondary : Activated Sludge
Havrstrv V	Haverstraw V	40	6,000	1,000,000	Primary : Sedimentation*
Nyack V	Nyack V	39	5,300	800,000	Primary : Sedimentation*
Orangetown T	Orangetown SD1	51	10,736	1,000,000	Secondary : Standard T.F.
Orangetown T	Orangetown SD2	59	3,472	1,300,000	Primary : Sedimentation*
Piermont V	Piermont V	16	1,500	250,000	Primary : Imhoff*
S Nyack V	South Nyack V	39	3,200	300,000	Primary : Imhoff*
Spring Vally V	Spring Valley V	63	13,000	1,500,000	Tertiary : Sand Filtration
Suffern V	Suffern V	61	5,094	1,500,000	Secondary : Standard T.F.
Upper Nyack V	Upper Nyack V	55	732	110,000	Primary : Imhoff*

* needs secondary treatment

LOCATION	PLANT NAME	YR BLT	TRIB POP	DESIGN FLOW	TREATMENT
<u>Sullivan</u>					
Fallsbrg T	Hilnd San Crp	61	500	50,000	Secondary : Standard T.P.
Nevrsink T	Grahamsville	52	400	100,000	Tertiary : Sand Filtration
Woodridge V	Woodridge V	49	4,200	1,000,000	Secondary : Standard T.P.
<u>Ulster</u>					
Kingston C	Kingston C	64	28,817	5,000,000	Primary : Sedimentation*
New Paltz V	New Paltz V	58	3,041	400,000	Primary : Imhoff*
Pinehill V	Pinehill V	30	1,500	150,000	Tertiary : Sand Filtration
Saugerts V	Saugerts V DUP	39	1,600	200,000	Primary : Sedimentation*
Saugerts V	Saugerts V EBP	40	800	100,000	Primary : Sedimentation*
Saugerts V	Saugerts V PP	39	1,500	200,000	Primary : Sedimentation*
Shandakn T	Chichester H	20	150	60,000	Primary : Sedimentation*
Shawangkn T	Wallkill SD	39	1,215	120,000	Primary : Imhoff*
Ulster T	Whittier SD	63	250	100,000	Primary : Sedimentation*
<u>New York City</u>					
Manhattan	Canal Street	27	50,000	15,000,000	Inadequate : Screening*
Manhattan	Dyckman Street	17	39,000	7,500,000	Inadequate : Screening*
Manhattan	Wards Island	48	1,470,000	180,000,000	Secondary

* needs secondary treatment

Hudson River, Page 6

LOCATION	PLANT NAME	YR BLT	TRIB POP	DESIGN FLOW	TREATMENT
<u>Westchester</u>					
Briarcliff V	Briarcliff MNR1	40	125	4,400	Primary : Sedimentation*
Briarcliff V	Briarcliff MNR2	40	5,000	100,000	Primary : Imhoff*
Buchanan V	Buchanan V	62	2,019	550,000	Secondary : Activated Sludge
Cortland T	Fawn Rdge SD 1	61	1,000	150,000	Tertiary : Sand Filtration
Cortland T	Springval DVL	59	850	100,000	Secondary : Standard T.F.
Croton Hu V	Croton on Hud	50	3,920	750,000	Primary : Sedimentation*
Irvington V	Irvington V	51	4,000	1,000,000	Primary : Sedimentation*
Mt Kisco V	Mt Kisco V	39	7,000	1,600,000	Secondary : Standard T.F.
N Tarrytown V	N Tarrytown V	40	9,100	1,700,000	Primary : Sedimentation*
Ossining V	Ossining V WAT	40	14,000	2,000,000	Primary : Sedimentation*
Ossining V	Ossining V LIB	40	2,000	1,400,000	Primary : Imhoff*
Peekskill C	Peekskill C	61	18,000	4,000,000	Primary : Sedimentation*
Tarrytown V	Tarrytown V	40	9,800	1,500,000	Primary : Sedimentation*
Yonkers C	Yonkers Jmstw	66	440,241	63,000,000	Primary : Sedimentation*
Yorktown T	Jefferson V SD 1	60	2,000	200,000	Tertiary : Sand Filtration
Yorktown T	Lakeside Vil H	58	250	100,000	Tertiary : Sand Filtration
Yorktown T	Yorktown H SD 1	63	4,500	500,000	Tertiary : Sand Filtration

* needs secondary treatment

STATUS OF STATE INSTITUTION TREATMENT FACILITIES
LOWER HUDSON RIVER DRAINAGE BASIN

Name of Institution and Owning State Agency	Locality	Pop.	Flow	Existing Treatment Facilities	Receiving Stream	Corrective Measures Indicated
Sing Sing Dept. of Correction	Ossining (T) Westchester	1804	0.25 mgd	Primary Cl. Pre	Hudson R.	1
Wallkill Dept. of Correction	Schawangunk (T) Ulster	503	0.14 mgd	Imhoff Tr. Filter Cl. Post	Wallkill R.	None
Green Haven Dept. of Correction	Beekman (T) Dutchess	2056	-	Settling Tr. Filter Sand Filter Cl. Pre & Post	Fishkill Cr.	None
Westfield Farm Dept. of Correction	Bedford (T) Westchester	521	0.16 mgd	Primary Tr. Filter Int. Sand Filter Cl. Pre & Post	Broad Brook	None
Napemoch Dept. of Correction	Wawarsing (T) Ulster	1008	0.18 mgd	Imhoff Tr. Filter Cl. Pre & Post	Rondout Cr.	None
Woodbourne Dept. of Correction	Fallsburgh (T) Sullivan	626	0.125 mgd	Imhoff Tr. Filter Cl. Pre & Post	Neversink R.	None
Matteawan Dept. of Correction	Beacon (C) Dutchess	1781	0.26 mgd	Imhoff Cl. Pre	Hudson R.	1
Warwick Training School Dept. of Social Welfare	Warwick (T) Orange	297	0.116 mgd	Imhoff Sand Filter	Wawaynda Cr.	1
Otisville Dept. of Social Welfare	Otisville (V) Orange	280	0.01 mgd	Imhoff Sand Filters	Beaver Br.	None

Name of Institution And Owning State Agency	Locality	Pop.	Flow	Existing Treatment Facilities	Receiving Stream	Corrective Measures Indicated
New Hampton Annex Dept. of Social Welfare	Warwick (V) Orange	258	0.05 mgd	Imhoff Sand Filter Cl. Post	Wallkill R.	None
Boys Training School Annex Dept. of Social Welfare	Goshen (T) Orange	85	0.06 mgd	E-A Plant Cl. Post	Ditch Trib. to Wallkill R.	None
W. Haverstraw Dept. of Health	W. Haverstraw (V) Rockland	128	-	Imhoff Cl. Pre & Post	Minisceonga R. To Hudson R.	1
Hudson River Dept. Mental Hygiene	Poughkeepsie (T) Dutchess	4415	-	Primary Separate Sludge Digestion Cl. Pre & Post	Hudson R.	1
Rockland Dept. of Mental Hygiene	Orangetown (T) Rockland	6326	0.75 mgd	Imhoff Tr. Filter Cl. Pre & Post	Sparkill Cr.	None
Highland Training * School for Boys Dept. of Social Welfare	Lloyd (T) Ulster	204	8000 gpd	Septic Tank Tr. Filter	Chodikee Lake	1
State Vocational Institute Dept. of Correction	W. Coxsackie (T) Greene	750	-	Imhoff Tr. Filter Settling Cl. Pre & Post	Coxsackie Cr.	None
Hudson Training School Annex Dept. of Social Welfare	Claverack (T) Columbia	120	0.12 mgd	Septic Tank Sand Filter Cl. Post	Tributary of Taghkonie Cr.	None
Hudson Training School Farm Colony Dept. of Social Welfare	Claverack (T) Columbia	32	0.032 mgd	Septic Tank Cl. Post	Claverack Cr.	2
Hudson Training School Dept. of Social Welfare	Hudson (C) Columbia	500	0.75 mgd	Septic Tank Sludge Beds Cl. Pre & Post	Hudson R.	1 or 3

* E-A Plant Under Construction

Name of Institution And Owning State Agency	Locality	Pop.	Flow	Existing Treatment Facilities	Receiving Stream	Corrective Measures Indicated
New York State Training School for Girls Dept. of Social Welfare	North Greenbush (T) Rensselaer	76	0.02 mgd	Septic Tank	Subsurface	None
Valatie Colony * (Nassau) Dept. of Mental Hygiene	Valatie (V) Columbia	26	-	Septic Tank	Subsurface	None
Guilderland State Health Farm Dept. of Health	Guilderland (T) Albany	-	-	Septic Tank Cl. Post	Normanskill	1
Willow Brook Dept. of Mental Hygiene	New York (C) Richmond	5600	-	Treated	Arthur Kill	None
Manhattan Dept. of Mental Hygiene	New York (C) New York	4500	-	No Treatment	Upper East R.	1 or 3

* To be abandoned in 1966

Robert D. Hennigan

CODING INFORMATION FOR STATE INSTITUTION

TREATMENT FACILITIES

LOWER HUDSON RIVER DRAINAGE BASIN

(Corrective Measures)

1. Install on-site treatment facilities equivalent to secondary treatment (minimum) plus disinfection.
2. Install on-site treatment facilities equivalent to secondary treatment (minimum).
3. Connect to municipal collection system.

LOWER HUDSON RIVER DRAINAGE BASIN

INDUSTRIAL DISCHARGES

<u>Name & Location</u>	<u>Type & Amount</u>	<u>Treatment</u>	<u>Characteristics of Discharges</u>
<u>RENSSELAER CO.</u>			
Troy Sand & Gravel Sand Lake	Process water - 200,000 gpd Sanitary wastes - 150 gpd	Industrial wastes to lagoon. Sanitary wastes to settling tank and then lagoon	Discoloration and turbidity
Fort Orange Paper Co. Castleton (V)	Cooling water - 200,000 gpd Process water - 1,420,000 gpd Sanitary wastes - 10,000 gpd Sanitary wastes - 500 gpd	Industrial wastes - none none	Fiber, chemicals, BOD, solids, and odors. Some discoloration and odor
Elite Manufacturing Co. Sand Lake (T)			
Huyck Felt Co. Rensselaer (C)	Process water - 107,500 gpd Cooling water - 25,000 gpd Sanitary wastes - 100,000 gpd	Process water - none Cooling water and sanitary wastes to city sewer	Oil, soap, soda ash, and acids to Mill Creek and Hudson causing discoloration, odor, turbidity, and solids.
Snow White Laundry Troy (C)	Process water - 100,000 gpd Sanitary wastes - 1,000 gpd	none	Discharge to Poestenkill causing discoloration.
Eagle Mills Brunswick	Process water - 10,000 gpd maximum	Industrial waste - none Sanitary wastes to sub-surface disposal system	Milk process causing some discoloration and odor.
7UP Bottling Co. Poestenkill (T)	Process water - 6,000 gpd maximum	Industrial wastes - none Sanitary wastes to sub-surface disposal system.	Bottling and vat cleaning causing occasional discoloration.

<u>Name & Location</u>	<u>Type & Amount</u>	<u>Treatment</u>	<u>Characteristics of Discharges</u>
General Aniline & Film Corp.	Process Water - 700,000 gpd. minimum. Cooling water - 1,500,000 gpd. Sanitary wastes - 20,000 gpd.	none	Dyes, chemicals, and solution causing some discoloration.
Winthrop Sterns Labs. Rensselaer (C)	Process water - 100,000 gpd. Cooling water - 2,100,000 gpd. Sanitary wastes - 110,000 gpd.	none	Chemicals and Pharmaceuticals in solution causing some discolor- ation.
<u>COLUMBIA CO.</u>			
North East Fruit Grower Co-op Livingston (T)	Process water - 56,000 gpd. Cooling water - 112,000 gpd.	Industrial waste none. Sanitary wastes (20 employ- ees) to sub-surface disposal system	Solids and odors.
Clermont Fruit Packers Clermont	Process water - 21,000 gpd. Cooling water - 3,000	Industrial wastes- none. Sanitary wastes (50 employ- ees) to sub-surface disposal system.	Solids and discoloration
Columbia Box Board Corp. Chatham	Process water - 700,000 gpd.	Save-all device and Poly Disc filter.	Color, solids, and organics
Kimberly Clark Corp. Schweitzer - Ancran (T)	Process water - 547,000 gpd. Sanitary wastes- 150 employees.	none	Tobacco slurry (color, solids, organics)
Prince High Rock Mills Philmont	Sanitary wastes - 25 employees	Settling tank	Textile wastes caused BOD, dis- coloration, and foam.
<u>GREENE CO.</u>			
North American Cement Corp. Catskill (T)	Process water - 20,000 gpd.	Settling - 300,000 gal. capacity pond	Discoloration

<u>Name & Location</u>	<u>Type & Amount</u>	<u>Treatment</u>	<u>Characteristics of Discharges</u>
Grunman Allied Industries Athens	Process water - 700 gpd.	Acid wastes neutralized and combined with sanitary wastes to secondary treatment plant.	
<u>ALBANY CO.</u>			
Tobin Packing Co. Colonie (T)	Process water - 450,000 gpd. Cooling water - 220,000 gpd. Sanitary wastes - 9,000 gpd.	Industrial wastes - none. Sanitary waste to public sewer.	Meat Processing (animal fats, grease, organic and color)
Allegheny Ludlum Steel Corp. Colonie (T)	Process water - 1,400 gpd. Cooling water - 3,500,000 gpd. Sanitary wastes - 10,000 gpd.	Industrial wastes Sanitary wastes to septic tanks.	Acid and oil wastes
Mohawk Paper Mill Inc. Cohoes (C)	Process water - 1,000,000 gpd. Sanitary wastes - 3,000 gpd.	Sanitary waste to Public sewer	Paper fiber and white water
Delaware & Hudson Railroad Corp. Colonie (T)	Process water - 30,500 gpd. Cooling water - 30,500 gpd. Sanitary wastes - 30,500 gpd.	Sanitary waste to Public sewer	Oil wastes
Albany Steam Station-Niagara Mohawk Bethlehem (T)	Sanitary wastes - 20,000 gpd. Cooling water - 521,000,000 gpd.		Cooling water
Carr Packing Co. Cohoes (C)	Process water - 7,000 gpd Sanitary wastes - 500 epd	Sanitary waste to Public sewer	Blood-Animal Fats, Grease
Atlantic Cement Co. Coeysmans (T)	Sanitary wastes - 15,000 gpd. Cooling water - 1,200,000 gpd.	Sanitary waste to sewage treatment plant	Cooling water
John A. Manning Paper Co. Green Island (V)	Process water - 7,000,000 gpd. Sanitary wastes - 6,000 gpd. Cooling water - 200,000 gpd.	Sanitary waste to Public sewer.	Cooking liquors, Paper Fiber

<u>Name & Location</u>	<u>Type & Amount</u>	<u>Treatment</u>	<u>Characteristics of Discharges</u>
Watervliet Arsenal Watervliet (C)	Process water - 30,000 gpd. Sanitary wastes - 240,000 gpd. Cooling water - 330,000 gpd.	Industrial wastes- none. Sanitary wastes to Public sewer.	Oil, Solvent & chromates
Ford Motor Co. Green Island (V)	Process water - 220,000 gpd. Sanitary wastes - 50,000 gpd. Cooling water - 700,000 gpd.	Sanitary wastes to Public sewer. Acid waste treated.	Acid wastes
Behr-Manning Colonie (T)	Process water - 125,000 gpd. Sanitary wastes - 77,000 gpd. Cooling water - 233,000 gpd.	Industrial wastes- none. Sanitary wastes to public sewer.	Inorganic Solids & dyes
<u>ORANGE CO.</u>			
Frost White Paper Mills Blooming Grove (T)	Process water - 1,250,000 gpd.	none	solids, turbidity, and fibers
Majestic Weaving Co. Cornwall (T)	Process water - 100 gpm over a 10hr. day. Sanitary wastes from 100 employees.	Industrial wastes- none. Sanitary wastes to an Imhoff tank.	Fabric process and dye waste
Cornwall Paper Mills Co. Cornwall (T)	Process water - 1100 gpm.	Process water - re- clamation practiced	re-fibrous solids
Ferndale Farms, Inc. Wallkill (T)	Process water from some 1100 cans	none	Milky discoloration
Tremper's Ice Cream Co. Crawford (T)	Process water from 70-100 cans of mix per day. Cool- ing water from a plate cooler	none	
Bordens Dairy Plant Minisink (T)	Process water from 400-850 cans of milk per day.	Settling tank	

<u>Name & Location</u>	<u>Type & Amount</u>	<u>Treatment</u>	<u>Characteristics of Discharges</u>
F. & J. Sand and Gravel Minisink (T)	Process water - 400 to 500 gpm. over an 8 to 10 hr. day.	Settling pond with some recirculation	Turbidity
Clover Knoll Guernsey Farm - Hamptonburgh (T)	Process water from handling 25 cans per day.	none	
Sealtest Milk Co. Montgomery (T)	Process water from 600 to 900 cans of milk per day.	Rinse water collected for return as animal food. Wash water discharged to pond tributary to Wallkill	No visible effects observed
Danskammer Point Steam Station - Central Hudson Gas & Electric Co. Newburgh (T)	Process water - 8,000,000 mgd. Cooling water - 256 mgd. Ash sluice water - 3.6 mgd. Boiler blowdown water - 2400 gpd. Sanitary wastes - 2,000 gpd.	Process water - none (no pollutants) Cooling water - none Ash sluice water - lagoon. Boiler blow- down water - none. Sanitary wastes - septic tank and chlor- ination.	Not visible
Catania Brothers Newburgh (T)	Process water - 500 gpd. Sanitary sewage - 1,000 gpd.	Settling sand filtra- tion and chlorination	
Cooney Brothers Newburgh (T)	Process water from washing 20 trucks per day.	none	Settleable and colloidal solids concrete and sand causing whit- ish discoloration in stream.
Ramapo Piece Dying and Finishing Co., Inc. Newburgh (C)	Process water estimate 100 to 150 gpm at 24hr per day. Sanitary wastes	Industrial wastes- mostly to city sew- ers. Sanitary wastes to city sewers.	Detergent and discoloration
National Gypsum New Windsor (T)	Process water - 300 to 400 gpm. on 24hr. basis. Cooling water - 5 to 10 gpm. Sanitary wastes from 57 employees.	Process water recycled from Save-all unit. Sanitary waste to septic tank.	Variable solids (very minute size) causing whitish ap- pearance.
Diamond Candle Co. New Windsor (T)	Sanitary wastes from 70-75 employees.	Septic tank	No visible effect on stream.

Name & Location	Type & Amount	Treatment	Characteristics of Discharges
American Felt Co. New Windsor (T)	Process water - 500,000 gpd. Cooling water - several hundred gpd. Sanitary wastes from 200 employees.	Screening	Solids and dye discoloration
Rubberoid Co. Cornwall (T)	Process and Cooling water - 85,000 gpd. Sanitary wastes - 5,000 gpd.	Process water - settling basins. Sanitary wastes - sand filtration.	
American Silk Label Unionville (V)	Cooling, process, sanitary wastes - very little process water.	Sand filtration	
Minisink Rubber Co. Unionville (V)	Process water - estimate between 60 and 200 gpm. over a 16hr. period. Sanitary wastes to subsurface system.	Industrial wastes - none. Sanitary wastes to subsurface system.	Soap and soap stone
Jannsen Dairy (now owned by Minisink Rubber Co.)	No process or cooling water discharged.	none	
F. Tetz & Sons Wallkill (T)	Process water approximately 330,000 gpd	none	No visual effects one-quarter mile downstream from point of discharge.
Lasaponara Cheese Co. Goshen (T)	Process water and Sanitary wastes - 10,000 gpd.	Settling	Solids accumulation with probable DO depletion.
Jones Chemical Company Warwick (T)	Process water - 2000 gpd. Cooling water - 20,000 gpd. Sanitary wastes - 500 gpd.	Process water - acid neutralization. Sanitary wastes to subsurface system.	No visual effects
Hollenbeck Sand and Gravel - Chester (T)	Process water - 120,000 gpd.	Settling ponds	Effluent clear at time of inspection.

<u>Name & Location</u>	<u>Type & Amount</u>	<u>Treatment</u>	<u>Characteristics of Discharges</u>
Chester Cable Co. Chester (T)	Process and Cooling water less than 500 gpd. San- itary wastes - 4000 gpd.	Industrial wastes, screening, settling, and recirculation. Batch dumping prac- ticed 2 times per yr. approximately 3000 gal. per dump. San- itary wastes to treat- ment plant with chlor- ination.	No visual effects
Mack Brothers Goshen (T)	Process water and sanitary wastes approximately 4000 gpd	Subsurface system fail- ing.	Solids, bottom deposits with probable DO depletion.
Star Expansion Indus- tries - Cornwall (T)	Process water - 42000 gpd Cooling water - 90000 gpd Sanitary wastes - 6,000 gpd.	Process water settling in neutral cooling water. Sanitary wastes - sec- ondary sewage treatment facilities with chlor- ination.	No visual effects noted
<u>PUTNAM CO.</u>			
Sonotone Corp.	Process water - 240,000 gpd. Sanitary wastes - 12,000 gpd.	none	At present process water and sanitary wastes to Hudson River by a Via Cold Spring Village sewers. When sewage treatment plant is built, only sanitary wastes will be accepted into sewers.
Camarco Contractors Inc.	Process water - 40,000 gpd.	Lagoon	Not observed. No aggregate washing done this year.
<u>DUTCHESS CO.</u>			
Chemical Rubber Products Co.	Cooling water - 600,000 gpd. Sanitary wastes - 5000 gpd.	Cooling water - none Sanitary wastes to septic tank.	

<u>Name & Location</u>	<u>Type & Amount</u>	<u>Treatment</u>	<u>Characteristics of Discharges</u>
Beacon Piece Dying and Finishing Co., Inc. Beacon	Dye and bleach water - 70,000 gpd. Cloth printing wastes, estimate 100 gpm. Sanitary wastes - 125,000 gpd.	Dye wastes - none Cloth printing wastes - oil, gum separators consisting of a septic tank; floating material removed by scavenger. Sanitary wastes either directly to creek or to Beacon city sewer system.	Most of dye wastes discharged to city sewer system, some discoloration. Cloth printing wastes - oily scum visible. Sanitary wastes - sewage fungus growth where line from pumping station crosses creek.
Braendly Dye Works, Inc. Beacon	Process water - 500 to 700,000 gpd. Sanitary wastes - 3000 gpd.	Process water - none Sanitary wastes - none	Discoloration
Atlas Fiber Co. Beacon	Process water - 10,000 gpm. Boiler blowdown water - small amount. Sanitary wastes - 2500 gpd.	Process water - none Boiler blowdown - none Sanitary wastes - septic tank.	Dye wastes not being discharged at time of visit. Sanitary wastes - effect not apparent because of gross pollution of stream.
Technical Tape Corp.	Cooling water - 1.7 mcd	none	
Noesting Pin Ticket Co. Dennings Point	Sanitary wastes - 300 gpd	Septic tank	
Texaco Research Center Fishkill	Petroleum and Sanitary wastes	Industrial - API Separator. Sanitary wastes - septic tank with chlorination.	Discoloration from petroleum wastes.
Orchard Hill Farms Red Hook	Food processing and sanitary wastes	Septic tank and leaching pits.	Septic system overflows
DeLaval Separator Poughkeepsie			No present problem
Western Lithography Co. Poughkeepsie		Secondary treatment plant	

WEST CHESTER CO

Name & Location	Type & Amount	Treatment	Characteristics of Discharges
Anaconda Wire & Cable Co. Hastings on Hudson	Process water - 50 gpm Cooling water - 150 gpm	Copper wastes now recirculated Pickle liquor re-covered.	
Barlow Chemical Co. Ossining (V)	Process water - 45,000 gpd		Process waste from products of salt and synthetic chemicals.
General Mills Ossining (V)	Process water - 90 gpd Cooling water - 400 gpd		220 gpd over vegetable and fish oil used daily; 40% goes to waste.
Hudson Wire Co. Ossining (V)	Process water - 2000 gpd Cooling water - 1500 gpd		Acid rinse water from plating and pickling operation.
Cortland Stone Co. Peekskill (C)	Process water - 54,000 gpd		Turbid from washing operations
Ednalite Optical Co. Peekskill (C)	Process water - 2 gpm Cooling water - 3 gpm	Heavy solids retained	Turbidity and oil from grinding processes.
Ford Steel Products Co. Tarrytown (V)	Process water - 300 gpm month, 50 gpd, 1200 gpm two months		Batch process operation
General Motors Tarrytown (V)	Process water - 4.75 mgd		Color and oil from metal washing and paint spraying
Standard Brands Peekskill (C)	Process water - 1.2 mgd	none	Color from yeast fermentation and vinegar.
Standard Coated Products Buchanan (V)	Process water - 75,000 gpd	none	Turbidity, color, and sludge from sewage waste.
Cooney Brothers Cortlandt (T)	Process water - 100,000 gpd	none	Sandwashing - effluent clear
Peekskill Mason Supply Cortlandt (T)	Process water - 50-100,000 gpd		Sandwashing - effluent heavy turbid.

<u>Name & Location</u>	<u>Type & Amount</u>	<u>Treatment</u>	<u>Characteristics of Discharges</u>
<u>ULSTER COUNTY</u>			
Hurly Sand and Gravel Inc. Marble (T)	Process water - from seepage into ground	Four settling lagoons; complete recirculation practiced (480,000 gpd)	No direct discharge to surface waters.
Ferroxcube Corp. of America Saugerties, N.Y.	Process water - 1000 gpd. Sanitary wastes - 20,000 gpd. Cooling water- recirculated in closed system.	Industrial wastes - settling basin. Sanitary wastes septic tank and filter bed plus chlorination	Discoloration from colloidal iron
Callanan Road Improvement Co. Esopus, N.Y.	Process water - 960,000 gpd	Rough Lagoons	Lagoon overflow - clear at time of inspection.
Collite Lightweight Aggregate Kingston	Process water used for wetting down roads and material; wet scrubbers - 432,000 gpd. Sanitary wastes from 20 employees.	For Sanitary wastes- wetting tank and leaching bed.	Wet scrubbers waters silt
Hudson Cement Corp. Kingston	Process water- 556,000 gpd. Cooling water- recirculated in closed system.	Settling in crude lagoons.	Variable turbidity
Star Brick Co. Ulster	Process water-6000 gpd Sanitary wastes from 60 employees.	Industrial wastes- none. Sanitary wastes to septic tank	Some turbidity
Hudson Valley Light Weight Aggregate - Saugerties	Process and scrubber water recirculated in closed system.	Lagoons	No discharge from lagoons to surface waters at present.
Mt. Marion Industrial Park- Russell Paper Co. - Saugerties	Small amount of Process water. Sanitary wastes from 100 employees.	Industrial wastes combined with sanitary sewage and treated in secondary treatment plant.	Effluent satisfactory

<u>Name & Location</u>	<u>Type & Amount</u>	<u>Treatment</u>	<u>Characteristics of Discharges</u>
Rotron Plant #1 Woodstock	Process water - 11,000 gpd. Cooling water - 8,000 gpd. Sanitary wastes - 4,000 gpd	Process and sanitary wastes treated in settling tank and subsurface sand filters. Cooling water completely recirculated.	Effluent clear
Forst Packing Co. Kingston	Process water - 2000 gpd	To city of Kingston sewers at present.	
Rondout Paper Mills Inc. Pawarsing	Process water - 1.2 to 3.0 mgd	To settling lagoons; some recirculation practiced.	Cause stream discoloration with visible solids and very pronounced sludge deposits.
Nytralite Aggregate Ulster	Process water 370,000 gpd. Cooling water - 50,000 gpd	Lagoons	No discharge at this time. Plant has not operated continuously enough to fill lagoon with access water. Eventual discharge from lagoon is contemplated.
International Business Machines Corp. Kingston, N.Y.	Process water - 50,000 gpd. Cooling water - 470,000 gpd recirculated Sanitary wastes 155,000 gpd.	P H adjustments; tests for cromates, cyanides, and solids. Sanitary wastes to treatment plant	Clear
Martin Cantine Coated Paper Co. - Saugerties			Color from dye and finishing wastes.
Ulster County Tissue Mill Saugerties			Color from dye and finishing wastes.
Dall Vechia & Son Highland			Solids from food processing.
Hudson Valley Apple Prod. Milton			Solids & spent caustic solution.
Hudson Valley Wine Co. Marlboro			Volatiles from evaporators.

WATER QUALITY SURVEILLANCE NETWORK

The State Health Department's Water Quality Surveillance Network obtains information on surface waters from eight stations in the Lower Hudson River Drainage Basin. This information is procured from the following waters by their respective agencies:

<u>Stream Name</u>	<u>Location</u>	<u>Station No.</u>	<u>Agency</u>
Hudson River	Poughkeepsie(T)	10	International Business Machine Corp.
Fishkill Creek	Beacon(C)	40	Dutchess Co. Health Dept.
Wappinger Creek	Lagrange(T)	50	Dutchess Co. Health Dept.
Hudson River	Newburgh(T)	65	Central Hudson Gas & Electric Corp.
Wallkill River	Rosendale(T)	70	Ulster Co. Health Dept.
Hudson River	Poughkeepsie(C)	103	Dutchess Co. Health Dept.
Hudson River	Poughkeepsie(T)	106	Hudson River State Hospital
Hudson River	Bethlehem(T)	200	New York State Health Dept.

The frequency of the examination of these waters varies with the agencies, which maintain the stations. Automatic water quality monitors are expected to be put into operation on the Hudson River within the near future.

The following table illustrates the data collected at the various stations in the water quality surveillance network.

Hudson River Town of Poughkeepsie International Business Machine Corp.
Station 10

STREAM FLOW CFS	LAKE LEVEL FT	TEMP. DEGREES C	COLOR UNITS	TURBIDITY UNITS	CONDUCTIVITY mhos	pH	COLIFORM Group BACTERIA PER 100 ml.	Concentration in Milligrams per liter			
								DISSOLVED OXYGEN	5-DAY BIO-CHEM OXYGEN DEMAND (BOD)	CAR- BON DI- OXIDE	(Cl)
1960 Maximum Minimum Mean Median Entries		25.0 .5 11.9 12.0 45	25 8 15 13 45	110. 9. 22.8 15. 45		7.6 7.1 7.3 7.3 45	23000 360 3331 2000 41	12.2 3.8 8.4 8.4 44	90.8 42.2 73.4 76.8 44	8.5 .6 2.2 1.6 31	8. 2. 5.7 6. 45
1961 Maximum Minimum Mean Median Entries		25.8 .5 10.5 7.0 33	25 13 21 23 33	110 9. 30.8 24. 33		7.7 7.1 7.3 7.3 33	12000 400 2430 1900 33	12.0 3.7 9.3 8.2 30	94.3 39.3 70.3 77.9 30	2.0 .7 1.4 1.4 15	8. 2. 5.4 6. 33
1962 Maximum Minimum Mean Median Entries		24.5 .6 12.6 13.8 40	35 12 22 25 39	70. 10. 25.0 23.5 40		7.5 7.1 7.3 7.4 40	11000 L 22 5617 3650 30	11.4 4.4 7.9 7.5 37	114. 51.8 73.9 71.8 37	3.2 .8 1.9 2.1 15	16. 1. 7.8 6.0 40
1963 Maximum Minimum Mean Median Entries		26.5 .5 12.2 15.0 30	35 10. 19 20 30	50. 6. 23.5 30 30		8.5 6.7 7.4 7.2 30	20000 22 5617 3650 30	11.0 4.5 7.6 7.5 25	122. 48.6 74.8 77.3 25	4.3 .4 2.3 2.4 30	50. 4. 21.9 20.0 30
1964 Maximum Minimum Mean Median Entries		25.0 1.0 13.3 14.0 36	30 10 18 17 36	67. L 25.0 32 32		8.2 6.8 7.3 7.3 36	30000 22 6367 4000 36	12.7 5.5 8.5 8.0 35	92.0 61.1 77.5 78.0 35	4.2 1.0 2.1 2.1 20	606. 9. 102.7 16.0 36
1960 thru 1964 Maximum Minimum Mean Median Entries		26.5 .5 12.1 184	35 8 19 183	110. 6. 180		8.5 6.7 7.3 184	30000 L 22 178	12.7 3.7 6.1 171	122. 39.3 74.0 171	8.5 .4 2.0 111	605. 1. 27.7 184

Hudson River, Town of Poughkeepsie International Business Machine Corp. Station 10

CONCENTRATION IN MILLIGRAMS PER LITER													
STREAM FLOW C.F.S.	LAKE LEVEL FT.	RESIDUE DISSOLVED (103°C)	CHEMICAL OXYGEN DEMAND PERMANENT DICHRO- MATE	FLOU- RIDE (F)	CALCIUM NESIUM (Ca)	IRON (Fe)	MANGA- NESE (Mn)	POTAS- SIUM (K)	SODIUM (Na)	SULFATE (SO ₄)	SILICA (S ₁ O ₂)	SURFACE ACTIVE AGENTS (ABS)	PHENOL (C ₆ H ₅ OH)
1960													
Maximum			19.							40.			
Minimum			9.							8.			
Mean			13.4							21.6			
Median			14.							19.			
Entries			43							45			
1961													
Maximum		136	41.							50.			
Minimum		133	8.							10.			
Mean		135	17.7							23.2			
Median		135	18.0							20.			
Entries		2	30							31			
1962													
Maximum		169	35.							50.			
Minimum		90	10.							23.			
Mean		116	23.0							32.7			
Median		113	25.0							30.			
Entries		7	36							39.			
1963													
Maximum			50.							55.			
Minimum			15.							15.			
Mean			27.1							28.4			
Median			27.0							22.5			
Entries			30							30			
1964													
Maximum			67.							60.			
Minimum			2.							5.			
Mean			24.8							25.3			
Median			18.							24.0			
Entries			33							32			
1960													
THRU													
1964													
Maximum		169	67.							60.			
Minimum		90	2.							5.			
Mean		170	20.7							26.1			
Entries		9	172							177			

499

CONCENTRATION IN MILLIGRAMS PER LITER									
STREAM FLOW C.F.S.	LAKE LEVEL FT.	PHOSPHATE (PO ₄)	ALKALINITY		HARDNESS		NITROGENOUS CONSTITUENTS		RESIDUE TOTAL SUSPENDED (at 103°C)
			BICAR- BONATE (as CaCO ₃)	TOTAL	CARBON- ATE (as CaCO ₃)	NON-CAR- BON (as CaCO ₃)	AMMONIA (as N)	NITRATE (as N)	

1960

Maximum
Minimum
Mean
Median
Entries

52
30
43
43
44

93
47
72
72
45

.3
.0
.098
.1
45

1961

Maximum
Minimum
Mean
Median
Entries

.0
31
.00
.0
3

58
50
46
45
33

98
50
82
83
33

.4
.1
.142
.1
33

1962

Maximum
Minimum
Mean
Median
Entries

.1
28
.01
.0
11

50
42
42
40

89
47
72
76
40

.3
.1
.151
.1
39

28

1963

Maximum
Minimum
Mean
Median
Entries

149
22
57
45
29

19
60
77
77
30

92
60
77
200
30

.6
.1
.260
.200
30

1964

Maximum
Minimum
Mean
Median
Entries

62
33
47
48
35

236
60
112
87
36

236
60
112
87
36

.6
.1
.247
.200
36

1960
THRU

1964

Maximum
Minimum
Mean
Entries

149
22
47
181

236
47
82
184

236
47
82
184

.6
.0
.173
183

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WASTE ASSIMILATION CAPACITY STUDIES

During the summer of 1964, determination was made of the waste assimilation capacity of that section of the Hudson River affected by waste discharges from the Capital District. The investigation has shown conditions in the Hudson to be more critical than originally anticipated. A preliminary analysis of the data shows that under critical dry weather conditions, the reach has an assimilation capacity in the range of 20,000 to 30,000 pounds of 5-day carbonaceous BOD per day assuming existing water quality at the Troy locks. The characteristics of the reach are such that the capacity is sharply limited by the effects of nitrification which substantially reduces oxygen resources.

At the present time approximately 120,000 pounds of BOD are discharged into this section of the river. Within the next ten to fifteen year period it is anticipated that this load will significantly increase.

It is readily apparent that primary treatment of existing waste loads will not be sufficient to adequately improve river water quality in the Troy to Ravena section of the river. It will be necessary to provide waste treat-

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ment plants capable of providing 85 to 90 percent removal of carbonaceous BOD and the maximum degree of nitrification available with present technology. Even with stringent treatment requirements constant evaluation will be required to assure that sufficient dissolved oxygen can be maintained to satisfy classification requirements with projected future waste loads from the area.

Waste assimilation capacity studies similar to the one referred to above will be undertaken to determine the degree of treatment necessary by remaining municipalities and industries discharging to the Hudson River and its tributaries.

NEW YORK HARBOR

Present Status of Defilement

Deterioration of harbor waters is particularly noticeable in areas where there are gross untreated sewage discharges that occur in the Hudson River along the west side of Manhattan and in Lower East River. The quality of water in New York Harbor is also affected by pollutants discharged from New Jersey, and by pollution carried to the harbor from upstream sources in Westchester and Rockland Counties. The pollutants are subjected to dispersion

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by tidal action and fresh water dilution in the harbor that is an unique complex estuarine system.

Municipal Discharges

In New York City there are 18 major pollution control projects as outlined by the New York City Department of Public Works. Refer to attached map. The projects are defined by sewer areas with provision for treatment works that are either in the design, construction or operational stages. Presently there are 12 plants in operation providing secondary treatment for about 63% of the total sewage volume. Some 600 mgd of untreated sewage is presently discharged from six of the areas. However, with the construction of the Newtown Creek project scheduled to be completed in 1966, 310 mgd of this raw sewage now being discharged to the harbor will be given effective treatment. Plans of the City call for the treatment of an ultimate daily design flow of 1.8 billion gallons of municipal sewage at 17 secondary treatment plants including major expansions at several of the existing works. Tabulations of the Pollution Control Projects

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are attached to this report.

Industrial & Institutional Discharges

New York City industry is very diversified and does not include much heavy manufacturing. Wastes from the industries and institutions not presently intercepted by municipal sewers are discharged to the harbor. According to City policy practically all of these wastes will be intercepted as municipal sewers become available. A total of 163 industrial and institutional discharges require interception or treatment as shown on the attached listings.

Corrective Action

Progress in the design and construction of collection systems and treatment works for the mentioned gross discharges is considered satisfactory in accordance with present time schedules. Notwithstanding this progress to combat gross pollution, further consideration is being given to upgrading treatment so as to protect water quality for bathing and shellfishing as stipulated by established water classifications. In addition special considerations are also being given to the storm water discharges from certain municipal combined sewers, the wastes from which have deteriorated waters tributary to Jamaica Bay and

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Eastchester Creek planned for use as recreational areas.

Classification Program

Except for Jamaica Bay and Upper East River basins, harbor waters are officially classified. Classifications for the remaining waters are expected by December, 1965.

Abatement Program

Formation of the Comprehensive Abatement Plan for classified waters is expected by November, 1965 followed by a plan for the remaining waters by December, 1965. In the development of the State plan there is continued cooperation with the Interstate Sanitation Commission in the execution of their pollution abatement program and the maintenance of ISC Water Standards.

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NEW YORK CITY POLLUTION CONTROL PROJECTS

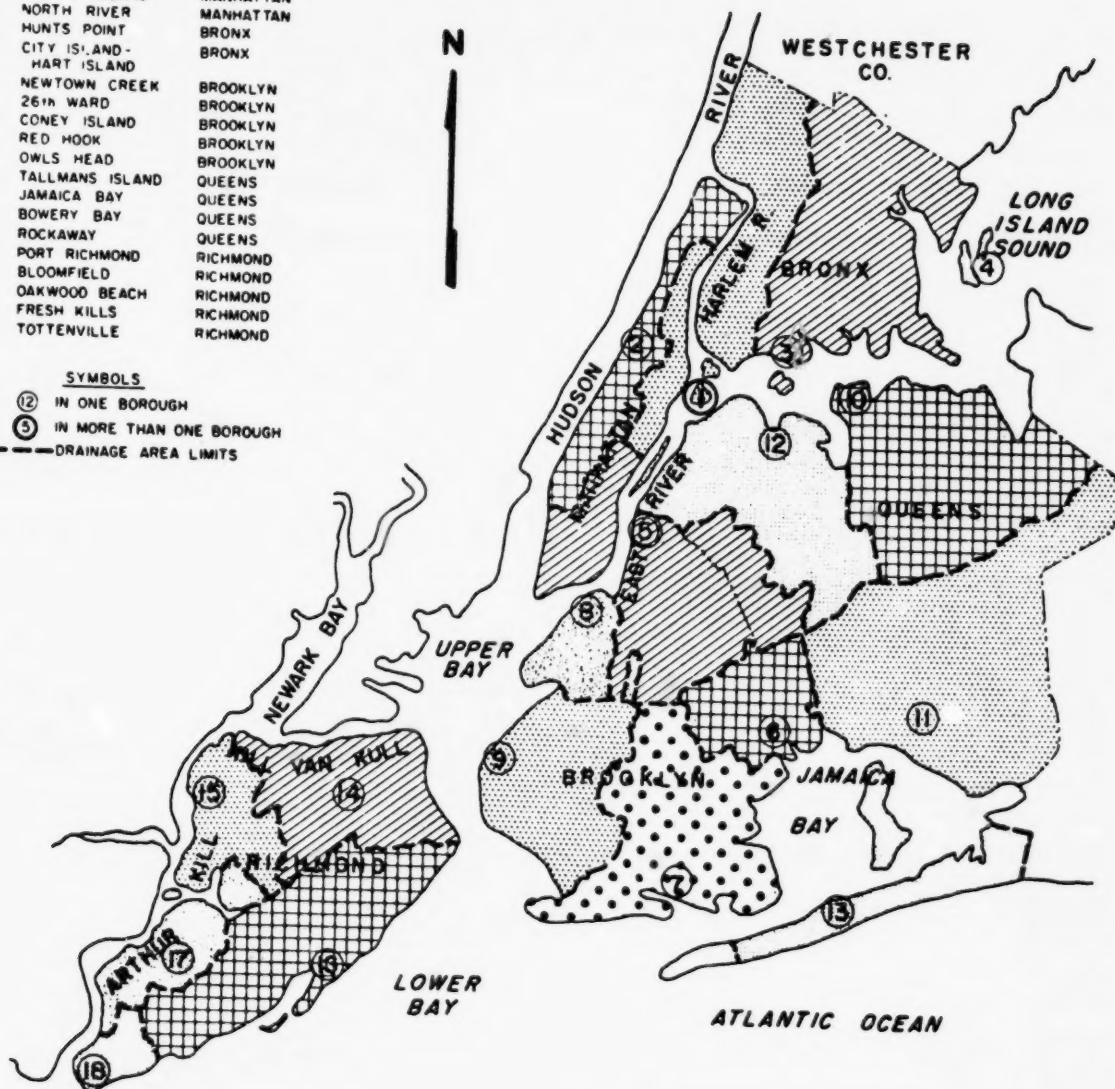
<u>Area No.</u>	<u>Treatment Plants</u>	<u>Treated MGD</u>	<u>Untreated MGD</u>
1	Wards Island	220	--
2	North River*	--	220
3	Hunts Point	150	--
4	City Island	1.5	--
5	Newtown Creek**	--	310
6	26th Ward	60	--
7	Coney Island	110	--
8	Red Hook*	--	50
9	Owls Head	160	--
10	Tallmans Island	60	--
11	Jamaica	100	--
12	Bowey Bay	120	--
13	Rockaway	30	--
14	Port Richmond	10	--
15	Bloomfield*	--	10
16	Oakwood Beach	15	--
17	Fresh Kills*	--	10
18	Tottenville*	<u>--</u>	<u>6</u>
	Total MGD	1037	606

*Proposed Treatment Plants

**Under construction

DRAINAGE AREA NO.	PROJECT NAME	BOROUGH LOCATION
1	WARD'S ISLAND	MANHATTAN
2	NORTH RIVER	MANHATTAN
3	HUNTS POINT	BRONX
4	CITY ISLAND - HART ISLAND	BRONX
5	NEWTOWN CREEK	BROOKLYN
6	26th WARD	BROOKLYN
7	CONEY ISLAND	BROOKLYN
8	RED HOOK	BROOKLYN
9	OWLS HEAD	BROOKLYN
10	TALLMANS ISLAND	QUEENS
11	JAMAICA BAY	QUEENS
12	BOWERY BAY	QUEENS
13	ROCKAWAY	QUEENS
14	PORT RICHMOND	RICHMOND
15	BLOOMFIELD	RICHMOND
16	OAKWOOD BEACH	RICHMOND
17	FRESH KILLS	RICHMOND
18	TOTTENVILLE	RICHMOND

SYMBOLS
 (12) IN ONE BOROUGH
 (9) IN MORE THAN ONE BOROUGH
 --- DRAINAGE AREA LIMITS



NEW YORK CITY DRAINAGE AREAS -
 ADAPTED FROM POLLUTION CONTROL
 PLAN OF THE N.Y.C. DEPT. OF PUBLIC
 WORKS.

Public Law 660 Grants - New York City

<u>Application</u>	<u>Federal Grant Amount</u>	<u>Total Project Cost or Funds Authorized</u>
<u>WFC-NY-44</u> - Coney Island Project	\$ 250,000.00	\$ 14,959,000.00
<u>WFC-NY-68</u> - Rockaway Pollution Control Project Extension	250,000.00	6,366,500.00
<u>WFC-NY-86</u> - Newton Creek Pollution Control Project	250,000.00	165,235,368.00
<u>WFC-NY-106</u> - Rikers Island	102,000.00	363,517.00
<u>WFC-NY-109</u> - Jamaica Extension	250,000.00	18,653,000.00
<u>WFC-NY-143</u> - Hunts Point Water Pollution Project Extension	600,000.00	7,655,000.00
<u>WFC-NY-158</u> - Mt. Kisco *	141,184.72	669,337.00
<u>WFC-NY-166</u> - Tallmans Island Pollution Control Project	250,000.00	6,454,000.00
<u>WFC-NY-214</u> - Wards Island Pollution Control Project	438,000.00	4,000,000.00
<u>WFC-NY-229</u> - Hillcrest Center for Children Pollution Control Project *	48,000.00	196,198.00
<u>WFC-NY-230</u> - Mt. Kisco (V) *	100,740.00	1,660,700.00
	<u>\$2,679,924.72</u>	<u>\$226,212,820.00</u>

* Outside of New York City

MUNICIPAL SEWAGE TREATMENT PLANTS
Harbor & Bay Drainage Basin

LOCATION	PLANT NAME	YR BLT	TRIB POP	DESIGN FLOW	TREATMENT
<u>Nassau</u>					
Cedarhurst V	Cedarhurst V	34	6,930	1,750,000	Primary : Sedimentation*
Freeport V	Freeport V	61	34,200	4,000,000	Secondary : H.R.T.P.
Hempsted T	Co Disp Dis 2	61	459,000	60,000,000	Secondary : Activated Sludge
Hempsted T	Jones Beach SP	50	70,000	2,000,000	Secondary : Standard T.P.
Hempsted T	Inwood S D 1	63	6,000	2,500,000	Secondary : H.R.T.P.
Hempstead T	W Long Beach SD	60	13,000	3,000,000	Secondary : H.R.T.P.
Lawrence V	Lawrence V	33	5,300	900,000	Primary : Sedimentation*
Long Beach C	Long Beach C	55	35,000	9,500,000	Secondary : H.R.T.P.
<u>New York City</u>					
Bronx	Hunts Point	63	770,000	150,000,000	Secondary
Brooklyn	Coney Island	62	535,000	110,000,000	Secondary
Brooklyn	Oulls Head	52	750,000	160,000,000	Intermediate*
Brooklyn	26th Ward	51	385,000	60,000,000	Secondary
Queens	Bowery Bay	58	750,000	120,000,000	Secondary
Queens	Jamaica	63	415,000	100,000,000	Secondary
Queens	Rockaway	61	90,000	30,000,000	Secondary
Queens	Tallman Island	63	251,000	60,000,000	Secondary
Staten	Oakwood Beach	56	85,000	15,000,000	Secondary
Staten	Port Richmond	53	60,000	10,000,000	Primary

* needs secondary treatment

MUNICIPAL SEWAGE TREATMENT PLANTS
Long Island Sound Drainage Basin

LOCATION	PLANT NAME	YR BLT	TRIB POP	DESIGN FLOW	TREATMENT
<u>Nassau</u>					
Glen Cove C	Glen Cove C	64	25,000	4,000,000	Secondary : H.R.T.F.
Great Nk V	Great Neck V	48	9,083	1,200,000	Secondary : H.R.T.F.
N Hempst T	Belgrave S D	65	15,000	2,000,000	Secondary : H.R.T.F.
N Hempst T	G Neck SD BVW	45	7,700	2,500,000	Primary : Sedimentation*
N Hempst T	Pt Washgtn SD	51	21,600	3,000,000	Secondary : H.R.T.F.
N Hempst T	Great Neck SDR	62	10,000	2,700,000	Secondary : H.R.T.F.
Oyst Bay T	Oyster Bay SD	65	7,125	1,800,000	Secondary : H.R.T.F.
Roslyn V	Roslyn V	50	3,500	450,000	Secondary : H.R.T.F.
<u>Suffolk</u>					
Brokhvn T	P Jeferson SD	55	3,000	550,000	Primary : Sedimentation*
Greenport V	Greenport V	40	3,000	500,000	Primary : Imhoff*
Huntgtn T	Huntington SD	57	9,000	2,000,000	Secondary : Standard T.F.
Northport V	Northport V	32	5,972	330,000	Primary : Imhoff*
Ocean B V	Ocean Beach V	50	5,000	500,000	Primary : Sedimentation*
Patchagu V	Patchogue V	51	5,000	500,000	Primary : Sedimentation*
Riverhead T	Riverhead S D	61	6,000	1,200,000	Secondary : Activated Sludge

* needs secondary treatment

Long Island, Page 2

LOCATION	PLANT NAME	YR BLT	TRIB POP	DESIGN FLOW	TREATMENT
<u>Westchester</u>					
Mamronck V	Mamaronck St	63	125,000	18,000,000	Primary : Sedimentation*
New Roch C	N Rochell STW	64	64,399	15,000,000	Primary : Sedimentation*
P Chestr V	Port Chester	64	23,000	5,000,000	Primary : Sedimentation*
Rye C	Blind Brk STW	63	19,701	5,000,000	Primary : Sedimentation*
<u>New York City</u>					
Bronx	Harts-City Island	42	5,000	1,500,000	Primary*
Bronx	Orchard Beach	45	Seasonal	100,000	Primary*

* needs secondary treatment

STATUS OF TREATMENT FACILITIES AT FEDERAL INSTALLATIONS
LOWER HUDSON RIVER DRAINAGE BASIN

Name of Installation And Owning Federal Agency	Locality	Flow	Existing Treatment Facilities	Receiving Stream	Corrective Measures Indicated
Stepping Stones Light Station Coast Guard	NYC Bronx	150 gpd	None	L.I. Sound	1 or 2
Throggs Neck Light Station Coast Guard	NYC Bronx	150 gpd	None	Upper L.I. Sound	2 or 4
No. Brother Island Light Station Coast Guard	NYC Bronx	100 gpd	None	E. River	1 or 2
Todd Shipyard Navy	NYC Kings	200 gpd	None	Lower E. River	3 or 4
Naval Air Station *	NYC Kings	0.15 mgd	Treated	Jamaica Bay	2 or 4
Naval Air Station Bldg. 24 & 38 Navy	NYC Kings	1500 gpd	None	Jamaica Bay	2 or 4
Naval Air Station Navy	NYC Kings	150 gpd	None	Ground	2 or 4
Naval Air Station Reserve Training Cntr. Navy	NYC Kings	300 gpd	Treated	Ground	None
Naval Air Station Coast Guard Hangar Coast Guard	NYC Kings	2250 gpd	Treated	Jamaica Bay	None

* To Floyd Bennett Field Treatment Plant (U.S.N.)

Name of Installation And Owning Federal Agency	Locality	Flow	Existing Treatment Facilities	Receiving Stream	Corrective Measures Indicated
Naval Device Training Service Center Navy	NYC Kings	-	None	Upper N.Y. Bay	2 or 4
Brooklyn Naval Shipyard Navy	NYC Kings	1.5 mgd	None	Lower East River	2 or 4
Military Medical Supply Agency Navy	NYC Kings	80,800 gpd	None	Upper N.Y. Bay	2 or 4
U.S. Coast Guard Air * Station (Brooklyn Air Station) Coast Guard	NYC Kings	8,000 gpd	Treated	Jamaica Bay	None
Brooklyn Army Terminal Army	NYC Kings	0.122 mgd	None	Lower N.Y. Bay	2 or 4
Governor's Island Light Station Coast Guard	NYC New York	100 gpd	None	Upper N.Y. Bay	1 or 2
Statue of Liberty Interior	Liberty Island New York	7,800 gpd	Treated	Hudson Bay	None
Fort Jay Army	NYC New York	0.35 MGD	None	Upper N.Y. Bay	2
LaGuardia Airport ** Federal Aviation Agency	NYC Queens	2,000 gpd	None	E. River	2 or 4

* To: Floyd Bennett Field Treatment Plant (U.S.N.)

** LaGuardia Airport Sewer

Name of Installation And Owning Federal Agency	Locality	Flow	Existing Treatment Facilities	Receiving Stream	Corrective Measures Indicated
Fort Tilden Army	Rockaway Point Queens	35,000 gpd	Treated	Jamaica Bay	None
Fort Tilden Army	Rockaway Point Queens	1,300 gpd	Treated	Ground	None
Romer Shoal Light Station Coast Guard	NYC Richmond	56 gpd	None	Lower N.Y. Bay	1 or 2
West Bank Light Station Coast Guard	NYC Richmond	55 gpd	None	Lower N.Y. Bay	1 or 2
USPHS Hospital Health, Education & Welfare	NYC Richmond	19,000 gpd	None	Upper N.Y. Bay	2 or 4
Bethlehem Steel * Navy	NYC Richmond	59,000 gpd	None	Kill Von Kull	2 or 4
Robbins Reef Light Station Coast Guard	NYC Richmond	120 gpd	None	N.Y. Bay	1 or 2
St. George Coast Guard Base Coast Guard	NYC Richmond	80,000 gpd	None	The Narrows	2 or 4
West Point Bldg. #394 Army	West Point Orange		None	Hudson R.	1 or 2
Hudson River Reserve Fleet Commerce	Jones Point Rockland		None	Hudson R.	1 or 2
Troy Lock Army	Troy Rensselaer		None	Hudson R.	3 or 4

Name of Installation And Owning Federal Agency	Locality	Flow	Existing Treatment Facilities	Receiving Stream	Corrective Measures Indicated
Montrose V.A. Hospital Veterans Administration	Montrose Westchester		Primary	Tributary to Hudson R.	(2)
U.S. Storehouse Army	Albany Albany		None	Patroon Creek	(4)
INDUSTRIAL TYPE DISCHARGES					
Stewart AFB Air Force	Newburgh (C) Orange		N/A	Beaver Dam Cr.	CN - N/A
Todd Shipyard Navy	NYC Kings	0.58 mgd	None	Lower E. River	CN - N/A
Brooklyn Naval * Shipyard Navy	NYC Kings	4.7 mgd	None	E. River	3
Watervliet Arsenal Army	Watervliet (C) Albany		None	Hudson R.	3

* Cooling and Pickling Wastes

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CODING INFORMATION FOR FEDERAL INSTALLATIONS

LOWER HUDSON RIVER DRAINAGE BASIN

(Corrective Measures)

1. Collect wastes in water-tight container (s) and dispose to appropriate on-shore treatment facilities.
2. Install on-site treatment facilities consisting of secondary treatment (minimum) plus disinfection.
3. Install on-site treatment facilities equivalent to secondary treatment and maximum nitrate formation as applicable.
4. Connect to municipal collection system.

CW - Cooling water discharge not considered to be a pollutive source except as a thermal agent or having present toxic agents used to control microbial growth in the cooling system proper.

N/A Not applicable.

NEW YORK HARBOR

Industrial Discharges

<u>Name of Entity</u>	<u>Location</u>	<u>Character of Wastes</u>	<u>Comments</u>
Metropolitan Petroleum Terminal Co., Inc.	Bronx	Oil Wastes	Oil separator treatment presently employed is inadequate to meet classification standards
Washburn Wire Co.	New York	Spent acids from steel cleaning	Ineffective treatment employing neutralization with lime
New York Transit Authority	New York	Oil, cleaning materials, grit and sanitary wastes	Untreated wastes are discharged to receiving waters. Part of sanitary wastes intercepted by municipal sewers
Surface Transit Inc.	New York	Wash water from bus cleaning operations	No treatment provided
James B. Berry Sons Co., Inc.	New York	Oil Wastes	Oil separator treatment presently employed is inadequate to meet classification standards
Consolidated Edison Co. of New York, Inc. (E 75th Street)	New York	Cooling, fly ash	Ash moistened and removed by rakes

<u>Name of Entity</u>	<u>Location</u>	<u>Character of Wastes</u>	<u>Comments</u>
Marlyn Warehouse Corp.	Queens	Sewage	Untreated sewage from some 25 persons is discharged to the receiving waters
Alloy Realty	Queens	Sewage, Cooling Water	Untreated wastes including sewage from some 85 persons are discharged to receiving waters
Gordon Lacey	Queens	Sewage, Cooling Water	Untreated wastes including sewage from some 70 persons are discharged to receiving waters
Triplex Oil Refining Co.	Queens	Surface drainage and sewage	No treatment provided
McInnis Iron Works	Queens	Sewage	Effluent from cesspool serving 3 persons is discharged to receiving waters
Horowitz Bros. & Margaretten	Queens	Baking equipment cleansing	No treatment provided
Liebro's Casting Co.	Queens	Process water from plastic mould operations and sewage	No treatment provided, Employs some 35 persons
Peerless Oil & Chemical Co.	Queens	Sewage	No treatment provided, Employs 50 persons
Abrasive Blast Cleaning Corp.	Queens	Cooling water and sewage	Overflow from subsurface sewage disposal system discharges to ditch adjacent to LIRR tracks, Employs about 6 persons

<u>Name of Entity</u>	<u>Location</u>	<u>Character of Wastes</u>	<u>Comments</u>
Boro-Valve Inc.	Queens	Sewage	Overflow from subsurface sewage disposal system discharges to ditch adjacent to RR yards, Employs some 32 persons
St. Marks Metal Products	Queens	Water from welding machine and sewage	No treatment provided, Employs some 30 persons
Jos Rosenberg's Sons, Inc.	Kings	Equipment cleansing from tallow manufacture and sewage	Grease trap provided, Employs some 31 persons
Manhattan Adhesive Corp.	Kings	Equipment cleansing from industrial adhesives manufacture and sewage	No treatment provided, Employs some 70 persons
Shell Oil Co.	Kings	Oil Wastes	Ineffective treatment by oil separators
Pinkas-Fischer Co., Inc.	Kings	Rendering process wastes and sewage	No treatment provided, Employs some 35 persons
Mobil Oil Co.	Kings	Oil refinery wastes and sewage	Ineffective treatment by oil separator and septic tanks
Paragon Oil Co.	Kings	Truck wash and sewage	Ineffective treatment by oil separator and septic tanks
Artippos Co.	Kings	Dye wastes and sewage	No treatment provided, Sewage may be intercepted by municipal sewer.
York Textile Co.	Kings	Silk screening process water and sewage	No treatment provided, Sewage may be intercepted by municipal sewer. Employs some 35 persons

<u>Name of Entity</u>	<u>Location</u>	<u>Character of Wastes</u>	<u>Comments</u>
P & N Finishing Co.	Kings	Dye wastes and sewage	No treatment provided Sewage may be intercepted by municipal sewer, Employs some 14 persons
Filtered Petroleum Products	Kings	Oil Wastes	Ineffective treatment by oil separators
Giffords Oil Co.	Kings	Oil wastes and sewage	Ineffective treatment by oil separators and septic tank. Employs some 35 persons
Metropolitan Petroleum Corp.	Kings	Oil wastes and sewage	Ineffective treatment by oil separators and cesspools Employs about 6 persons
Premium Coal & Oil Co.	Kings	Oil Wastes	Ineffective treatment by oil separators
Colonial Sand & Stone Co.	Kings	Truck washing wastes	Ineffective treatment by septic tanks
Fulton Fish Market (NYC Dept. of Markets)	New York	Equipment cleansing	Waste waters are chlorinated
Preferred Oil Co.	Kings	Oil and sewage	Ineffective treatment by oil separators and septic tank, Employs some 80 persons
Shaw-Walker Co.	Queens	Sewage	Ineffective treatment by septic tank. Employs about 8 persons
New York Central System	Bronx	Car cleansing wastes	No treatment provided
Box Mart, Inc.	Queens	Sewage	No treatment provided. Employs about 3 persons

<u>Name of Entity</u>	<u>Location</u>	<u>Character of Wastes</u>	<u>Comments</u>
Phelps Dodge Corp.	Queens	Copper refining	Sedimentation pit for treatment of water from slag granulating process
American Oil Co.	Kings	Oil	No treatment provided
The American Sugar Refining Co.	Kings	Sugar refining wastes	No treatment provided
The F & M Schaefer Brewing Co.	Kings	Brewery wastes and sewage	No treatment provided
Pussy Cat Food Corp	Kings	Process wastes and sewage	No treatment provided
Van Iderstine Co.	Queens	Drippings, equipment cleansing and sewage	Process wastes are treated in settling basins. Sewage from main plant intercepted by municipal sewer. Sewage from office not provided treatment
Brooklyn Union Gas Co.	Kings	Condensing & oil stripping	Separators and coke filters (Operates intermittently)
American Molasses Co. (Sucrest Division)	Kings	Waste process and cooling	No treatment provided
Kentile Floors	Kings	Dye and cooling	No treatment provided
Irving Subway Grating Co.	Queens	Cleaning solutions, cooling water and sewage	No treatment provided
Principe-Danna, Inc.	Queens	Truck washing	No treatment provided
D.D. Williamson & Co., Inc.	Queens	Equipment cleansing from caramel coloring	No treatment provided

<u>Name of Entity</u>	<u>Location</u>	<u>Character of Wastes</u>	<u>Comments</u>
Colonna & Co., Inc.	Queens	Waste water from marble cutting operations	Ineffective treatment by settling tanks
Texaco, Inc.	Queens	Oil Wastes	Ineffective treatment by oil separator
Sinclair Refining Co.	Queens	Oil wastes and sewage	No treatment of oil wastes. Cesspool serves about 90 persons
NYC Poultry Market	Queens	Cleansing facilities for handling live poultry	No treatment provided
Pepsi-Cola Co.	Queens	Process wastes	No treatment provided
Mariners Harbor Industrial Park (Division of JML Trading Corp.)	Richmond	Sewage	No treatment provided Employs about 8 persons
James Thompson & Sons & Colprovia Asphalt Corp.	Richmond	Dust depression wastes	No treatment provided
Bethlehem Steel Co.	Richmond	Ship hull washing, ion exchange regeneration, boiler blow-down, cooling waters and sanitary	No treatment provided
Brewer Dry Dock Co.	Richmond	Ship hull washing, boiler blow-down, cooling	No treatment provided
Magruder Color Co.	Richmond	Filtrates, equipment cleansing sewage	No treatment provided Employs about 12 persons
Standard Toch Chemicals Inc.	Richmond	Scrub water caustic wastes, cooling water	No treatment provided

<u>Name of Entity</u>	<u>Location</u>	<u>Character of Wastes</u>	<u>Comments</u>
Proctor and Gamble Co.	Richmond	Equipment cleansing, cooling waters and sanitary	Oil separators and centrifugation of industrial wastes. Sanitary treated by "Rated-Aeration Unit"
United States Gypsum Co.	Richmond	Equipment cleansing, dust extraction, cooling, boiler blow-down	No treatment provided
Gulf Oil Corp. (N.Y. Refinery)	Richmond	Water softening, boiler blow-down, oil wastes, barge cleaning	API separators
Mobil Oil Co.	Richmond	Ion-exchange regeneration, barge cleaning, equipment cleansing boiler blow-down, sanitary	API separator for oil wastes Septic tank for sanitary wastes. Employs about 69 persons
Onyx Chemical Co.	Richmond	Filtrates, equipment cleansing boiler blow-down, cooling and sanitary	No treatment provided for industrial wastes.. Cesspool for sanitary wastes.
Nassau Smelting and Refining Co.	Richmond	Dust removal, oil cooling and sanitary	No treatment provided
Consolidated Edison Co. of New York, Inc. (Travis)	Richmond	Ash sluicing, cooling, boiler blow-down, ion-exchange regeneration	Lagoon for ash-sluicing wastes
Consolidated Edison Co. of New York, Inc. (West New Brighton)	Richmond	Boiler blow-down, cooling waters	No treatment provided
Consolidated Edison Co. of New York, Inc. (45th Avenue)	Richmond	Boiler blow-down	No treatment provided

<u>Name of Entity</u>	<u>Location</u>	<u>Character of Wastes</u>	<u>Comments</u>
Consolidated Edison Co. of New York, Inc. (20th Avenue)	Queens	Ion-exchange regeneration, cooling, gas production process, boiler blow-down and sanitary	Settling basins, coke beds for gas production process water, new municipal sewer being installed
Consolidated Edison Co. of New York, Inc. (14th Street)	New York	Ion-exchange generation, cooling water	No treatment provided
Consolidated Edison Co. of New York, Inc. (35th Street)	New York	Boiler blow-down	No treatment provided
Consolidated Edison Co. of New York, Inc. (1st Avenue)	New York	Boiler blow-down, ion-exchange generation cooling water	No treatment provided
Consolidated Edison Co. of New York, Inc. (59th Street)	New York	Boiler blow-down	No treatment provided
Consolidated Edison Co. of New York, Inc. (Hudson Ave)	Kings	Cooling, ion-exchange regeneration, boiler blow-down	No treatment provided
Consolidated Edison Co. of New York, Inc. (Kent Ave)	Kings	Cooling, ion-exchange regeneration, boiler blow-down	No treatment provided
Consolidated Edison Co. of New York, Inc. (201st Street)	New York	Cooling, ion-exchange regeneration, boiler blow-down sanitary	No treatment provided
Consolidated Edison Co. of New York, Inc. (12th Street)	New York	Cooling, ion-exchange regeneration, boiler blow-down sanitary	No treatment provided
Precast, Inc.	Queens	Surface drainage	No treatment provided
Greater New York Terminal, Inc.	Queens	Oil spillage and surface drainage	Oil separator provided

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<u>Name of Entity</u>	<u>Location</u>	<u>Character of Wastes</u>	<u>Comments</u>
Sunrise Oil Co., Inc.	Queens	Spillage and surface drainage	Oil separator provided
Colonial Sand & Stone Co., Inc.	Queens	Truck spillage and surface drainage	No treatment provided
Tri-Boro Asphalt Corp.	Queens	Surface drainage	No treatment provided
Hastings Pavement Co., Inc.	Queens	Cooling and surface drainage	No treatment provided
Premium Coal & Oil Co., Inc.	Queens	Spillage and surface	Oil separator provided
N.Y.C. Dept. of Sanitation	Queens	Process water	No treatment provided
President Boro of Queens Asphalt Plant	Queens	Wash water and surface drainage	Settling tank
Flushing Asphalt Corp.	Queens	Surface drainage	No treatment Provided
Concrete Conduit Corp.	Queens	Surface drainage	No treatment provided
Mac Asphalt Contracting Co., Inc.	Queens	Cooling, boiler and surface drainage	No treatment provided
Tully and DiNapoli, Inc.	Queens	Surface drainage from bulk handling of stone and gravel	No treatment provided
Colonial Sand & Stone Co., Inc.	Queens	Surface drainage	No treatment provided
Columbia Asphalt Corp.	Queens	Wash water and surface drainage	Treatment by settling tank
Serval Slide Fasteners, Inc.	Queens	Sanitary, plating waste, cooling and wash water surface drainage	No treatment provided

<u>Name of Entity</u>	<u>Location</u>	<u>Character of Wastes</u>	<u>Comments</u>
Metropolitan Petroleum Corp.	Queens	Spillage and surface drainage	Leaching pit with overflow to receiving waters
Transit-Mix Concrete Corp.	Queens	Spillage and surface drainage	No treatment provided
North Shore Transit Mix Corp.	Queens	Truck spillage and surface drainage	No treatment provided
Metropolitan Asphalt Corp.	Queens	Wash water and surface drainage	Settling tank provided
Metropolitan Precast Products, Inc.	Queens	Surface drainage	No treatment provided
The Great Atlantic & Pacific Tea Co., Inc.	Bronx	Sanitary, cooling and surface drainage	Ineffective septic tank treatment
Hudson Coal Co.	Bronx	Surface drainage	No treatment provided
Consolidated Edison Co. of New York, Inc.	Bronx	Cooling and condensing water, ion-exchange regeneration, boiler blow-down	No treatment provided
National Gypsum Co.	Bronx	Spillage at warehousing operations	No treatment provided
Metropolitan Petroleum Co.	Bronx	Cooling and surface drainage	No treatment provided
Cirillo Bros. Petroleum Co.	Bronx	Spillage and surface drainage	Oil separator provided
The New York, New Haven & Hartford Railroad Co.	Bronx	Surface drainage from trucking warehouses, repair shops	No treatment provided
National Gypsum Co.	Bronx	Surface drainage	No treatment provided

<u>Name of Entity</u>	<u>Location</u>	<u>Character of Wastes</u>	<u>Comments</u>
Paragon Oil Co., Inc.	Bronx	Spillage and surface drainage	Oil separator provided
Venetian Contracting Co., Inc.	Bronx	Surface drainage	No treatment provided
Apex Salvage Corp.	Bronx	Surface drainage	No treatment provided
Bronx Iron & Metals Corp.	Bronx	Surface drainage	No treatment provided
Ryan Ready-Mixed Concrete Corp.	Bronx	Surface drainage	No treatment provided
Boro President Bronx	Bronx	Boiler water, surface drainage	No treatment provided
Transit-Mix Concrete, Inc.	Bronx	Surface drainage	No treatment provided
N.Y.C. Dept. of Sanitation	Bronx	Process, cooling, boiler, surface drainage	No treatment provided
Exner Sand & Gravel Corp.	Bronx	Sand and gravel washings, surface drainage	No treatment provided
Colonial Sand & Stone Co., Inc.	Bronx	Surface drainage	No treatment provided
Gulf Oil Co.	Bronx	Surface drainage	No treatment provided
Cirillo Bros. Petroleum Co.	Bronx	Surface drainage	No treatment provided
M. H. Treadwell Co.	Bronx	Sanitary	Septic tank provided
Edgewater Machine Co., Inc.	Bronx	Cooling	No treatment provided
Public Service Oil Co., Inc.	Bronx	Spillage and surface drainage	Oil separator provided
Fred M. Schildwachter & Sons, Inc.	Bronx	Sanitary, spillage and surface drainage	Oil separator and septic tank provided
Starck-Rawlings	Bronx	Surface drainage from coal yards	No treatment provided

<u>Name of Entity</u>	<u>Location</u>	<u>Character of Wastes</u>	<u>Comments</u>
H & S Oil Co., Inc.	Bronx	Surface drainage from fuel operations	No treatment provided
Eljam Mason Supply	Bronx	Surface drainage from supply yards	No treatment provided
Jamaica Bay Towing Line, Inc.	Queens	Wash water and cooling	No treatment provided
Jamaica Bay Oil Corp.	Queens	Oil spillage and surface drainage; sanitary	Oil separator. sanitary sewer discharges to Bergen Basin
Cliff's Fishing Station, Inc.	Queens	Process waste	Septic tank treatment
Hummel's Manufacturing Co.	Queens	Process and surface drainage	No treatment provided
South Shore Incinerator, N.Y.C. Dept. of Sanitation	Kings	Process water	No treatment provided
Scott J. McBurney	Kings	Surface drainage	No treatment provided
J.P. Frank	Kings	Cooling, process and surface drainage from vinyl plastics operations	Oil separator provided
Sun Oil Co.	Kings	Spillage and surface drainage	No treatment provided
Gulf Oil Corp.	Kings	Spillage and surface drainage	Oil separator provided
Syn-Tex Dyers	Kings	Coal tar, vegetable oil	No treatment provided

New York State Recommendations

The following are recommendations made as the result of the review of both the Federal and New York State Hudson River pollution reports and New York State's experience with water pollution abatement programs.

1. Increase construction grants. Financing is the key to sewage treatment plant construction. On the State level, passage of the Pure Waters Bond Program is required. On the Federal level, increased appropriations, removal of grant limitations which discriminate against metropolitan areas and removal of individual grant ceilings are suggested.
2. Provide Federal incentives for industry which will facilitate construction of waste treatment facilities.
3. Increase Public Health Service personnel to assist with the handling of construction grant applications submitted by New York State.

This is a two-edged sword. We are in the

Robert D. Hennigan

process ourselves of trying to increase steps. It isn't a very easy task. Also, we have conferred with the people in the Public Health Service, and have their assurance that they will cooperate with us in every effort to process the construction grant applications. We expect a tremendous increase in the number of these applications. Our past experience indicates this, and I think we are probably in a little bit of a period now where people are holding back to determine what is going to happen in November.

4. Improve the total Federal effort associated with pollution abatement by the organization of a Federal coordinating committee. It is suggested that the Public Health Service take the initiative to organize a committee consisting of representatives of the Corps of Engineers, Department of Commerce, Coast Guard, United States Geological Survey, Department of Interior, Department of Agriculture, Department of Defense, Department of Urban Affairs, and the Federal Power Commission. These Agencies and Departments presently are active in some phase

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of pollution abatement. Coordination would eliminate the possibility of duplication of effort and would simplify the administration of State and local programs.

5. Conduct research and demonstration projects which will develop practical solutions to the problem of storm water overflow.

As you probably all know, this is a tough problem everywhere in the country, as has been evidenced here by other remarks, but also in the northeast and particularly the Hudson Valley we have combined sewers from one end of it to the other. It is an old, old section of the United States going back 300 years, and practically all of these cities have combined sewers. This is a particularly tough problem all along the Hudson, starting from the Troy locks down to the New York Harbor.

6. Conduct research and demonstration projects which will develop means of reducing and treating discharges from vessels in congested harbors such as in New York Harbor.
7. Proceed with the proposed Public Health Service study of the Hudson River with

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the knowledge that the study will develop methods beyond the present planned treatment plant construction by which future use of the Hudson River may be maximized. Perhaps consideration should be given to the construction of a salt water barrier in the lower Hudson River.

In this regard, we note that most of our main concern here today is the elimination of gross pollution from the river. It is our feeling that the proposed Public Health Service study would carry us into more sophisticated areas, where we will assuredly have to take further action in the future.

8. That the Federal Government join with the State of New York in its program to have adequate secondary treatment facilities constructed and year-round effective chlorination practiced where required at all sewage treatment installations in the Hudson River basin.

I feel we are in substantial agreement on that at this particular time.

9. That the Federal Government cooperate with the State of New York in the operation

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of a joint automatic monitoring network in the Hudson River basin. This network should be designed to evaluate both the acceptability of water for potable uses and the efficiency of waste treatment facilities.

10. With the agreement that regional planning is often the most logical and economic approach toward meeting pollution problems, it is recommended that the Federal Government join with the State of New York to encourage such regional planning.

Thank you.

MR. STEIN: Thank you, Mr. Hennigan.

(Applause.)

MR. STEIN: Are there any questions or comments?

(No response.)

MR. STEIN: I think Mr. Hennigan has indicated a very sophisticated grasp of the problem and future programs.

I think he also brought out one facet in these recommendations -- and I see the Corps of Engineers people here -- that may be very interesting, because the Hudson River evidently, like most other rivers, probably will

require very careful management to maintain water quality control. Possibly the treatment of wastes may be just the first elementary step.

As we grow in the country, we are going to require probably much more sophisticated operations of our rivers -- for example, the regulation of flows. I think the day when we are going to see free-flowing rivers is one in the past, except for those rivers designated for the purpose of conservation or other reasons.

In order to maintain a river like the Hudson, which has this industry and the people, we probably are going to have to have extensive public works projects. But I think, and I read this implicitly in Mr. Hennigan's remarks as I understand them, that if you approach the Federal Government on this type of program, the first prerequisite is adequate treatment of the wastes at the source. I don't think you can expect Federal dilution water or salt water barriers, or anything of that kind, unless we can come forward with a program showing that we are making every effort to provide adequate waste treatment at the source.

Once that is done, I think we very well may begin getting support for the rest of the program.

But, again, I think Mr. Hennigan pointed out

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thing that should be borne in mind by the people here, that the installation of these treatment facilities in and of themselves won't be the end to preserving water quality of the Hudson River. Other programs, facilities, research and public works may be called for.

Are there any further comments?

(No response.)

MR. STEIN: I think Mr. Hennigan has possibly another person to call on before we recess for lunch.

Mr. Hennigan.

MR. HENNIGAN: Thank you, Mr. Chairman.

I would like to ask Mr. Donald Lynch, Executive Director of the Citizens Committee for Clean Water, to make his presentation now.

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STATEMENT OF MR. DONALD E.
LYNCH, EXECUTIVE DIRECTOR,
CITIZENS COMMITTEE FOR CLEAN
WATER, NEW YORK, NEW YORK

MR. LYNCH: Mr. Chairman, ladies and gentle-
men:

Bob, I hope that your optimistic view is correct. We have some polls which indicate that perhaps this isn't quite as rosy as it appears. We hope you are right.

This statement is on the necessity for prompt action to combat water pollution in New York State.

So urgent is the need to clean up the waters of New York State that 30 voluntary organizations have combined to form the Citizens Committee for Clean Water. These groups represent diverse fields: health, conservation, recreation, education, civic betterment, commerce, and professional societies. A full list of member organizations appears at the end of this statement, which is issued jointly by all these participating groups.

The Citizens Committee for Clean Water is convinced it is imperative for the voters to approve

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Proposition One on the New York State ballot next Election Day, November 2nd. Municipalities must have more State and Federal aid to construct facilities needed to curb water pollution, for the cost of building sewage treatment plants and interceptor sewers is so vast that localities seldom are able (or willing) to assume the full burden. The bond issue funds made possible by approval of Proposition One will be an incentive to municipalities to act without further delay, and will ease the economic burden in instances where action is ordered by official agencies.

During the course of this hearing you will be presented with numerous arguments why water pollution must be controlled -- from the view of the economy, for health protection, for esthetic reasons, for wildlife preservation, for added recreational opportunities, to maintain property values, and for other cogent reasons. The Citizens Committee for Clean Water would like to advance the idea that water pollution control is good in itself, and is an end in itself. Beyond the practical aspects of a control program, there is a traditional American concern with cleanliness as a desirable element in life. This is an essential part of our culture.

The only possible opposition to Proposition One is reluctance to sanction more government spending.

Yet here is an instance where spending now really is a saving, for construction costs are rising so fast that they will quickly outstrip the cost of a bond issue. In this connection, it is significant that the Citizens Public Expenditure Survey, a watchdog group on government spending, has announced its stand favoring passage of Proposition One. This group recognizes that clean water is a necessity of life. We can afford it -- and we cannot afford pollution.

The Citizens Committee for Clean Water, which has hundreds of local affiliates in communities throughout New York State, also recognizes that passage of Proposition One, in itself, is not enough. Once the voters have said "Yes," municipalities must be encouraged to avail themselves of funds provided.

In connection with implementation of Proposition One, we sincerely hope that the Federal Government will offer maximum encouragement to New York State in the form of increased financing.

Also, the Citizens Committee for Clean Water applauds the action of the 1965 State Legislature in approving tax incentives for industries to build additional facilities to prevent pollution.

Finally, the Citizens Committee for Clean

Water realizes that water pollution is a problem that knows no boundaries; it is in the best interests of communities upstream as well as those downstream.

In its educational campaign, the Citizens Committee for Clean Water has produced a number of informational materials. Upon request, it will be happy to furnish samples to this conference.

Now, at the conclusion, I would like to take one more moment, Mr. Chairman, if I may, to read the list of the Citizens Committee for Clean Water members, in order that you may see the wide diversity of these organizations which have joined together in this common cause.

Adirondack Park Association
Associated Industries of New York State
Citizens Union of the City of New York
Commerce and Industry Association of New York
Community Council of Greater New York
Cornell University Water Resources Center
County Health Officials Association
Friends of the Hudson
Garden Club of America, Northeastern Zone
Lake George Association
League of Women Voters of New York State
National Audubon Society

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National Recreation Association

New York State Congress of Parents &
Teachers (P-TA)

New York State Academy of Preventive Medicine

New York State Association of Councils and
Chests

New York State Association for Health, Physical
Education and Recreation

New York State Colleges of Agriculture & Home
Economics Cooperative Extension Service

New York State College of Agriculture,
Department of Conservation

New York State Conference of Mayors

New York State Conservation Council

New York State Junior Chamber of Commerce

New York State Nurses Association

New York State Recreation and Park Society

New York State Teachers Association

New York State Tuberculosis and Respiratory
Disease Association

New York Water Pollution Control Association

St. Lawrence Valley Association

State Charities Aid Association

Women's City Club of New York, Inc.

With this kind of a lineup, Bob, maybe we are in better shape than we think we are.

Thank you, sir.

MR. STEIN: Thank you very much.

(Applause.)

MR. STEIN: Are there any comments or questions?

(No response.)

MR. STEIN: If not, we will recess for lunch. We will try to reconvene at 1:30.

(Whereupon, at 12:00 o'clock noon, a luncheon recess was taken.)

AFTERNOON SESSION

1:30 P.M.

MR. STEIN: May we reconvene?

Mr. Hennigan?

MR. HENNIGAN: Thank you, Mr. Chairman.

Is Mrs. Kenneth Greenawalt here, President
of the New York State League of Women Voters?

Mrs. Kenneth Greenawalt.

Mrs. Kenneth Greenawalt

STATEMENT OF MRS. KENNETH GREENAWALT,
PRESIDENT, LEAGUE OF WOMEN VOTERS OF
NEW YORK STATE

MRS. GREENAWALT: Mr. Stein, members of the conference:

The League of Women Voters of New York State has a very real interest in the critical water problems of the communities along the Hudson River. We are pleased that citizens and citizens' groups have been invited to express their concern at this important conference.

The 88 Leagues throughout the State are convinced of the need to clean up New York's waters. We applaud Governor Rockefeller and a unanimous Legislature for the State's Pure Waters program. In the present period of drought, and with ever-increasing domestic, industrial and recreational demands for water, New York, we believe, can no longer tolerate the pollution of its rivers, streams and lakes.

The League has therefore joined with 30 other citizen groups to work vigorously from now until election for the \$1 billion bond issue to provide funds to help municipalities construct the sewage treatment plants so

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desperately needed. The increases in Federal construction grants authorized last week by Congress may have allayed some objections to the State's assuming more than a 30% share of total costs. The League of Women Voters does not imagine that Federal money will equal an across-the-board 30% for some time to come, but this is all the more reason for our support of Proposition #1. To postpone the program would be uneconomic and, in the present emergency, unthinkable.

Two things the League of Women Voters learned early in its nationwide study of water resources: (1) that there was a multiplicity of governmental agencies in the water resources field, and (2) that water has no regard for municipal or State boundaries. The attack on pollution and the planning for optimum use and development of water resources must be a coordinated effort involving all levels and all appropriate agencies of the government, and it must encompass an entire river basin.

The Leagues in the Hudson drainage and service area have not yet made the comprehensive river basin study which has been undertaken in the Delaware and Lake Erie basins, and elsewhere by Leagues throughout the country. Our summary of conditions along the Hudson River is based on local surveys of water supply and pollution by some of

Mrs. Kenneth Greenawalt

our local Leagues. These year-old surveys have been updated wherever possible. We are not qualified to present details for every county, city, town or village, or industry, up and down the length of the Hudson. However limited our findings, strong patterns clearly emerge.

From the large cities, such as the Troy-Rensselaer-Albany complex and New York City, which discharge raw or inadequately treated sewage into the Hudson, gross pollution is obvious. We hope this condition will be corrected by the new strict enforcement laws and the financial help available from the Bond Issue. We were relieved to learn of the commitment made last week to take action at Albany and Troy.

We are also concerned with a condition, which may not be so obvious to the public at large: the abundance of septic tank systems in areas with growing populations. In one report after another we find contamination of ground and surface waters from cesspools and septic tank seepage. This condition demands construction of sewer systems themselves, construction which is not covered by funds available from the Bond Issue. Where sewers do exist, the treatment of sewage varies from adequate to non-existent. Even where treatment is adequate now it may not be in the future; many treatment plants will have to be expanded.

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Some Leagues were very concerned with the combined storm and sanitary sewers. In the runoff from heavy rainfall, raw sewage was, therefore, bypassing treatment plants and being discharged directly into the Hudson. Fish kills and the many areas on the river unfit for swimming were noted. One League reported that although swimming was permitted locally, a degree of pollution did exist nevertheless. A report from Poughkeepsie a year ago yielded an extra problem, the flushing of tanks by oil tankers. Checking this out over the weekend we were unable to find if this situation still prevails, but there is great concern over the presence of heavy, thick "bunker oil" in the vicinity of the Tarrytowns and southward.

Our own documentation of industrial pollution is too sketchy to allow us to make a positive statement of the degree of industrial pollution. In general we find industry showing increasing signs of cooperation. Industry, we believe, has an obligation to treat its waters, but research into ways of treating new kinds of wastes is badly needed. We would hope that the expanded research which is part of the State's Pure Waters Program will be vigorously pursued.

Public apathy is an old acquaintance of the League of Women Voters and was reported to be prevalent

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in some of our reporting areas, but we do not think public apathy can be blamed entirely for past or future failures. Local elected officials have a responsibility to take courageous action in the face of intolerable conditions and to help educate the public who will have to pay for corrective measures.

Where compliance with the pollution control law is lacking, where clean-up orders are disregarded, where there is stalling or foot-dragging by any polluter, whether industrial, municipal, or individual, strict enforcement measures must be taken. Preferably this should be done by local or State officials. But when local or State action is not taken, the Federal Government must exert its authority. We are convinced that if the localities, States, and interstate agencies get on with the job of cleaning up the waters, they need not worry about Federal interference. We have noted in several fields of League interest that the quality of cooperation between municipalities and levels of government varies. The pattern seems to be that on a vertical line - from local to State to Federal -- the cooperation is better than it is horizontally - from one local government to another.

New York State's Pure Waters Program with its stricter enforcement laws, passage of Proposition #1

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and the growing concern of Congress with the plight of our large cities and metropolitan areas, indicate correction of gross pollution and a long step forward. We hope the public does not regard this Bond Issue as a panacea. The moment of truth will come after November 2nd, as the campaign turns back to the local communities who will have to move ahead to fulfill their share of the responsibility. With the end of the drought, when it comes, we are concerned that people will forget the summer of 1965, and will not henceforth regard water with the same reverence and respect that western Americans have had to regard it for many years.

We now know what the problem is. The sources of pollution can be identified. We already know how to correct much of what is wrong. We have the intellectual and technical capability to solve the problems that are blocking progress. What we do need is a grim determination to tackle the job and see it through. It is time for cooperative, coordinated, intensified action by all levels of government, by industry, and by the citizens themselves.

Thank you.

MR. STEIN: Thank you, Mrs. Greenawalt.

(Applause.)

Mrs. Kenneth Greenawalt

MR. STEIN: Are there any comments or questions?

(No response.)

MR. STEIN: As usual, the League's statement is characterized by both brevity and cogency. I wish we could say that for all statements.

But I think we should try, Mrs. Greenawalt, to see if we can answer the question you might have had over the weekend.

Do you know, Mr. Hennigan, about the flushing of those oil barges?

MR. HENNIGAN: I couldn't add anything to that.

MR. STEIN: Do you know, Mr. DeFalco?

The question here was that a report from Poughkeepsie a year ago indicated that the flushing of oil tankers was a problem. Checking this out over the weekend, the League of Women Voters could not find if the problem still prevailed, but they said there was great concern over the presence of heavy, thick bunker oil in the vicinity of the Tarrytowns and southward.

I guess we don't have any information on that?

MR. DeFALCO: No, we don't have the details.

MR. STEIN: Thank you very much.

Mr. Hennigan?

MR. HENNIGAN: Mr. Alan Gussow, Chairman,
Citizens' Committee for the Hudson River.

Alan Gussow

STATEMENT OF MR. ALAN GUSSOW,
CHAIRMAN, CITIZENS' COMMITTEE
FOR THE HUDSON RIVER

MR. GUSSOW: Thank you very much.

Mr. Chairman, my name is Alan Gussow, and I am Chairman of the Citizens' Committee for the Hudson River, a Rockland County based organization and one of the very first citizens' groups to promote efforts to plan for the highest and best use of the Hudson River. We have acted as a liaison with numbers of civic groups and local communities as well as with conservation organizations throughout the area and presented testimony at the Congressional Subcommittee hearings held in July on the Hudson Highlands national scenic riverway.

We do not pretend to have the technical facilities for determining the precise statistics on water pollution. There is no question, however, that the Hudson is polluted, is being polluted this very minute, and that, unless action is taken both soon and emphatically, the situation will deteriorate to the point where the river may well pass beyond the point of restoration.

What has grieved my Committee has been reports

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issued by the New York State Department of Health and more recently a report issued by the Public Health Service of the United States Department of Health, Education, and Welfare -- reports which revealed that all segments of our community life are contributing to the pollution of the river. It is not simply businesses operating with outmoded procedures or indifference to the needs of the environment, but it is the local community governments themselves, State agencies, public facilities including hospitals, and finally the Federal Government in West Point and the Hudson River Reserve Fleet at Tompkins Cove -- it is all of these elements -- business, local government, State agencies, and the Federal Government -- that are contributing to the pollution. When existing laws are flouted to such an extent, we may well ask what can possibly be done. It seems to me that an enormous educational job is required. The people themselves must be made to realize the extent of the pollution, the sources of the pollution, the techniques that are available for abating it, and how filthy water pollutes their lives, their faucets, and their recreational opportunities. The people must convey their outrage and their refusal to accept anything less than a cleaned up river; and let me assure you that the glare of publicity and public outrage

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can work wonders.

It was my Committee that acted as host to Senator Robert F. Kennedy on his highly reported tour along the Hudson in the Haverstraw Stoney Point region on May 2nd of this year. Senator Kennedy described the area as one of unbelievable blight. He used the words "junk" and "gunk" to describe the shoreline -- a shoreline in one of the most rapidly suburbanizing parts of Rockland County. The river was a mess. The local village as well as industry were contributing to it, and the people simply accepted this state. It might interest this committee to know that last week I revisited the sites of Senator Kennedy's itinerary and learned that one point of land owned by the Gurran Oil Company -- land leased to one of the last of the shad fishermen, which had been blighted with automobile wrecks -- I learned that the entire parcel of land which they own and which was subjected to national publicity as the result of Senator Kennedy's visit was completely cleaned up the day after the Senator was there. Whether or not this firm believed in a cleaner environment, or whether they simply felt it was bad business to blight the land, I leave to this conference to contemplate.

What is done to abate pollution in the Hudson

Alan Gussow

River will be watched carefully across this country, and indeed in many of the urban centers of the world. It is not only democracy that we export, but it is our respect for our environment and the way in which we use our land and solve our urban problems. If we can achieve some good here in the Hudson Valley, it will serve as a demonstration that the United States proposes to take responsibility for the environment of its citizens and, moreover, other areas in our own country and places around the world will, as a result of this pilot project, have solid information on the good practices and procedures which they might follow to achieve similar beneficial results.

In conclusion, we would like to make three points that are rather simple and obvious:

1. The success of the already introduced scenic river legislation is inseparably bound to the present efforts to abate pollution. We see the two efforts, that is, of pollution abatement and shoreline rehabilitation, as being indivisible.
2. Since all levels of government are responsible for polluting the river, we think that all levels of government must take the responsibility for cleaning it up.
3. We see all of the efforts at restoring

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and rehabilitating the Hudson River as part of President Johnson's new conservation. This historical first hearing in the Hudson Valley can be the keystone and model for the President's program.

Thank you very much.

(Applause.)

MR. STEIN: Thank you, sir.

Are there any comments or questions?

(No response.)

MR. STEIN: You know, I was glad to know about this Hudson River Reserve Fleet. I thought the only thing we were discharging from there was mothballs, but I understand we do have a barge and maintenance crew out there, and I am sure we will get to work on that.

Mr. Hennigan?

MR. HENNIGAN: Mrs. Helen Putnam, for the Chairman of the Friends of The Hudson.

Mrs. Helen Putnam

STATEMENT OF MRS. HELEN PUTNAM,
ON BEHALF OF LARRY BOGART, CHAIR-
MAN, FRIENDS OF THE HUDSON,
MOUNTAINVILLE, NEW YORK

MRS. PUTNAM: Mr. Chairman, ladies and gentlemen:

My name is Helen Putnam, and I am reading a statement for the Chairman of the Friends of The Hudson, Larry Bogart. He had a conflicting appointment in connection with the Citizens Committee for Clean Water.

In considering the problem of water pollution in the most important river basin in the Nation, we must be mindful that this is only one symptom of a larger problem: The failure to plan comprehensively on a long-range basis for our survival. Friends of The Hudson is a citizen's action group concerned with the preservation of a good environment in the Hudson River Valley.

The Hudson-Champlain-Metropolitan Coastal District is a great natural region, and planning must logically take into account the resources of the whole area from the Canadian border to Montauk Point. Parts of five States are involved. It is on this basis that the

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Department of Health, Education, and Welfare has been conducting its water pollution control studies.

The people of this district have come to realize that the parts must be related to the whole and that there can be no satisfactory solution -- nothing but a deteriorating environment -- unless we have a master plan.

If we go on as we have been, the fouling of air and water will creep out from the cities. Added millions, and the industries to serve them, will create new slums and slurbs faster than we can authorize renewal projects -- and we will all be victims of the losing battle against blight and pollution.

New York City is a glaring example of our failure to plan. The Herald Tribune calls it "the greatest city in the world and everything's wrong with it." The great city planner Doxiadas says New York will be unlivable in a decade unless radical action is taken. This is beyond the abilities of a new city administration or the State to remedy.

So the problem of water pollution -- the most serious natural resource problem of the Nation -- can only be intelligently dealt with as one phase of a bigger problem: How to create an environment where men may not merely

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survive, but may flourish.

We are facing up to a shameful situation in New York State. The post-war population growth has made action imperative. Nature can no longer digest and carry away the volume of sewage and industrial wastes poured into the State's waterways.

New York City is a city in a cesspool. In addition to the sewage borne down the Hudson, the city adds half a billion gallons a day of its own. Waste swirls down the East River from the communities that empty their waste into Long Island Sound.

This is the shame of the Nation. With the drought, pollution has become a serious health hazard. Under similar conditions, India experienced 25,000 cases of infectious hepatitis not long ago. Chlorine does not give protection against this virus, and we now know of more than 200 virus-caused diseases.

New York State has come up with a comprehensive program to cope with the problem. The key to the seven-part package is voter approval this fall of a \$1 billion bond issue. It will provide, with available Federal grants, 60% of the cost of adequate sewage treatment plants which 1167 communities throughout the State desperately need. This subsidy, with an educational program, should

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induce these communities to get on with the job and provide the remaining 40% of the cost. Total cost of presently needed facilities is \$1.7 billion. There is no better beginning -- in fact, there is no alternative. However we may differ on measures to clean up the Hudson, there can be no disagreement about voting "Yes" on Proposition Number One.

Let's look into the consequences of not having a central responsible agency to administer this district. The fiasco of New York City's water supply is perhaps most conspicuous. On Abel Wolman's recommendations in 1952 the Chelsea pumping station was built to provide an auxiliary source from the Hudson, then dismantled, now being reconstructed against the emergency of this winter at a fabulous cost -- and treating the Hudson to make it non-toxic will also be expensive. The Mayor is now quoted as proposing to use salty water drawn from the Hudson at Cornwall, courtesy of Con Edison. Meanwhile, at this particular point the Hudson receives the most picturesque filth of all, Moodna Creek. Here for more than 10 years, in spite of citizen protests and promises that the stream would be Class C, Frost White Mills spews tons of odorous waste in all colors. If we mean to clean up the Hudson, here's a good place to start.

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As a result of documenting this case and others, we conclude that the problem of pollution of the Hudson has been compounded at severe expense to the taxpayers by overlapping rival Federal and State agencies, studying, surveying and conferring -- while the pollution grows worse.

We must not relax because government agencies are taking over. The FPC, the Corps of Engineers and the Bureau of Reclamation are among the arch enemies of real conservation. The latest nonsense is a proposal to build a chain of reservoirs created by damming the upper Hudson in an area which qualifies as a national "wild river."

What can be done now? The most helpful thing would be to give incentives to industry. Now that the rules of the game are changing, industrial plants that were engineered to a lower standard can be rather quickly changed over if Federal taxes recognize this in the form of rapid write-off, similar to the State incentive. It will take a lot longer for improvement resulting from new municipal sewage plants to show up.

With reasonable control and enforcement, it is perfectly possible for a coordinating agency to utilize the natural capacity of the river to degrade wastes and at the same time maintain a quality that is safe for

swimming, boating and fishing. Revenue from recreational resources restored by cleaning up the Hudson will make a substantial contribution to the economy of the State.

What else can be done to roll back blight and prevent the recurrence of trouble as our population swells?

A single commission should be formed consisting of Federal, State and local entities to draw rational long term plans for the entire Basin. More progress has been made in the Delaware and Connecticut watersheds than on the Hudson. This agency with jurisdiction over natural resources should consolidate many of the functions now exercised by duplicating agencies with partial responsibility for resource management.

If we want to assure that there will be human life in this Number One Basin some years hence, immediate drastic action against water and air pollution is necessary. There is a delicate balance that maintains life systems. We must take pains to guard our dwindling wildlife on the land, in the air and in our streams. We need to add to our tree population and resist encroachments on our wetlands. We must replace fossil fuels with atomic power.

The situation is entirely too critical for

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people to tolerate such short-term expedients as carving away Storm King Mountain and ruining forever the famed beauty of the Hudson Highlands and the Gorge -- when there are economic alternatives to supply peak power needs. We need to add to our parklands and in this region with its matchless scenery and growing number of historic restorations we could have a second Williamsburg. Here also an International Study Center for Conservation and a Museum of Man in the Harvard Black Rock Forest could fortify our commitment to assume leadership in international cooperation in conservation.

What is here proposed is a bold master plan on a scale never before attempted but now vitally necessary. California is destroyed, New York City is about to go down the drain. The experts are frightened. Only a new government agency coupled with broad citizen participation can prevent our so-called progress from destroying altogether this once excellent habitation of man.

Thank you very much.

MR. STEIN: Thank you, Mrs. Putnam.

(Applause.)

MR. STEIN: Are there any comments or questions?

(No response.)

Mrs. Helen Putnam

MR. STEIN: I think with Mrs. Putnam's statement you can see the type of citizens' groups that keep us honest, and in the pollution field I don't think we ever could have existed without them. I don't know that we can live with them, but I don't know that we can live without them either. That is what has kept pollution control alive all during the dismal years.

I am happy, Mrs. Putnam, that we weren't on the list of those agencies that you listed as being against conservation, but some of my best friends were.

(Laughter.)

MR. STEIN: Mr. Hennigan?

MR. HENNIGAN: Mr. Russell D. Butcher of the National Audubon Society.

STATEMENT OF MR. RUSSELL D.
BUTCHER, ON BEHALF OF THE
NATIONAL AUDUBON SOCIETY

MR. BUTCHER: Mr. Chairman, remaining members
of the conference:

The CBS Television network recently broadcast
a program on the nationwide destruction of our country's
natural heritage. It began by saying:

"The American earth was the source
of our strength, and the symbol of our
spirit, and the landscape of our aspira-
tion. We camped upon it, moved westward
through it, built on it, sustained our-
selves from the earth. Until suddenly --
in our own time -- there was very little
of it left. ... Now, the limit of unplanned
expansion may have been reached."

It is clear that the limit of unplanned and
uncontrolled pollution has been reached, and the National
Audubon Society strongly supports the realistic participa-
tion of the Federal Government, in cooperation with the
States of New York and New Jersey and with private industry,

Russell D. Butcher

toward the critically important task of cleaning the polluted waters of the Hudson River. As with so many other rivers and lakes across the continent, the Hudson has too long been neglected. Now, of course, the cost of pollution-control will be very high and the changing of old ways very difficult.

Had the States of New York and New Jersey, their cities and industries consistently shouldered their responsibility in treating waste adequately, there would likely have been no demand for Federal help in pollution abatement on the Hudson or elsewhere. Municipalities and industries should have provided their own treatment facilities, and they should have been built to keep pace with increasing population and industrial growth.

To improve the quality of the long-neglected Hudson, the Federal Government will have to join with the States and their cities and industries to help pay the ever-increasing costs of treatment facilities so long overdue. No longer acceptable in our growing States and across the Nation is the philosophy of "let the downstream users worry about my mess." It is indeed true that each source of pollution must be treated adequately before it is permitted to enter the public waters of the Hudson or its tributaries. It is also true, as The Christian

Russell D. Butcher

Science Monitor has editorialized recently, that "Industries and municipalities...ought to bear the cost of treating their own waste and sewage." The simple fact is, however, that far too many of them have not. Now the magnitude of the pollution problem is such that substantial Federal as well as State assistance and force are needed.

New York State law now provides tax exemptions for the added value of industrial pollution control facilities. Such incentives should also be made part of the Federal law. Further, as an ultimate power in the interest of this public water resource, the Federal Government should be able to force compliance with water pollution abatement standards through court action. And the combined force of the State and Federal Governments must be used to clear away the roadblock of each city waiting for the next, and the next, and the next to purify its own wastes, as so often happens. Speedier enforcement procedures are urgently needed.

Whatever the approach, whether of assistance or punishment or both, it is clear that sewage disposal is now among our most urgent public problems demanding prompt action. A special report to The New York Times earlier this year stated pointedly:

Russell D. Buccher

"As more people move to the cities..., their waste and that of the industries that serve them threatens to engulf metropolitan areas in a sea of defilement unless they do things they have never been willing to do -- put sewage disposal on a par with schools and highways."

The National Audubon Society commends Senator Robert Kennedy and the Governors of New York and New Jersey for urging this Hudson River water pollution conference, and the U. S. Department of Health, Education, and Welfare for calling the conference, which is similar to others already held this year in Cleveland and Detroit. We hope this will signal the start of constructive Federal-State-local-private action to restore the murky waters of the Hudson to something approaching their primitive purity.

Thank you.

MR. STEIN: Thank you very much, Mr. Butcher.

(Applause.)

MR. STEIN: Are there any comments or questions?

(No response.)

MR. STEIN: Mr. Butcher, I wonder if you could thank Mr. Charles Calison of the Audubon Society for me,

Russell D. Butcher

for his participation in pollution control through the years, as a member of the President's Water Pollution Control Advisory Board, and previous to that as a staff member of the Wildlife Federation.

Mr. Calison of the Audubon Society has been a leader in the fight for pollution control, and has indeed been the architect of much of the Federal legislation which is now in the books.

I wish you would convey my thanks to him.

Thank you.

May we go on, Mr. Hennigan?

MR. HENNIGAN: Mr. Gwyn Thomas, Assistant to the President, Associated Industries of New York State.

STATEMENT OF MR. GWYN THOMAS,
DIRECTOR OF GOVERNMENTAL AFFAIRS,
EXECUTIVE ASSISTANT TO THE PRESI-
DENT, ASSOCIATED INDUSTRIES OF
NEW YORK STATE, INC.

MR. THOMAS: Mr. Chairman, may I start off by complementing the League of Women Voters for the statement which has been delivered, and was especially, as you indicated, the paramount approach of the citizens of our State to the problems of the Hudson River, as well as the other problems of the entire State.

My name is Gwyn Thomas. I am director of governmental affairs and executive assistant to the president of Associated Industries of New York State, Inc., with offices at Albany, and I am here on invitation, as explained, of Dr. Hollis S. Ingraham, New York State Commissioner of Health.

I am instructed to convey to the conferees the regrets of our Associated Industries president, Mr. Joseph R. Shaw, over his inability to be here, and also personally to you, Mr. Stein, to convey his deepest respects.

Gwyn Thomas

MR. STEIN: I wish you would do the same, because I find Joe to be one of the most enlightened and effective industrial and civic representatives. I wish we could have had him at the conference, because he always has constructive suggestions.

MR. THOMAS: Fine. Thank you very much. I will convey that, with real pleasure.

For your information, Associated Industries is the "manufacturers association" of New York State. We have members in every part of the State, and they range from the smallest to the largest. The manufacturing members of our Association employ the majority of New York State's factory work force. The work of our Associated Industries Water Resources Committee has been expanding for the last ten years and falls within my staff responsibility. I do not propose to make a lengthy statement, but will be glad to answer questions from the conferees to the best of my ability. The points I wish to make are these:

1. In the invitation to this meeting, it was emphasized that the main purpose of the conference is to seek the "most advantageous ways that Federal, State and local governments can work together in abating existing pollutional situations" affecting the Hudson River and its

tributaries. May I suggest, with all respect, to this conference that in this State there is a fourth force working on this team seeking the solution of water pollution generally. That force is industry working through the Associated Industries organization in an honest attempt to help achieve the goal of pure waters which our State's community demands and has long demanded.

2. I am privileged to convey to the conferees the full support, without restriction, of Associated Industries for the \$1.7 billion water pollution program presented by Governor Nelson A. Rockefeller. This is the \$1 billion bond issue program that will be voted upon by our people on November 2nd -- and we are 100% behind that program and we urge that it be approved so that we can get started on the enormous job of cleaning up that pollution, particularly of the Hudson, which has resulted from the failure of our communities to keep abreast of the needs for local sewage plants and intercepting sewers. I should like to read into the record the highlights of a resolution approved by our Board of Directors on March 3, 1965, which has been reaffirmed as a matter of principle by our Board of Directors as recently as August 10th:

"Manufacturing industry in New York State

Gwyn Thomas

has a tradition of strong teamwork with New York State government in connection with control of and correction of water pollution in the surface waters of the State. Associated Industries has repeatedly demonstrated not only its deep concern with water pollution but has exerted its leadership and know-how toward the establishment of the reasonable, sound and workable water pollution program embodied in the New York law.

"Associated Industries endorses wholeheartedly Governor Nelson A. Rockefeller's historic and meaningful plan for a massive attack on the water pollution problem as a program to bring to fruition many of the basic goals promoted by Associated Industries and its members affecting clean waters.

"The Governor's program in our judgment is a bold and imaginative extension of the activity which we supported in the years immediately following World War II when Associated Industries worked closely with the Joint Legislative Committee on Interstate Cooperation in the formulation of the Water Pollution Control

Gwyn Thomas

Law of 1949 which was unanimously adopted by the Legislature with public support from Associated Industries. In 1949 we gave our full backing to regulatory legislation in the water pollution control field -- an unusual step for industry

"In announcing his plans for this massive approach to achievement of pure waters, Governor Rockefeller has properly pointed to the considerable progress already made by industry in this State.

"Industry believes that the Governor's program, which envisions a six-year comprehensive program for pure waters financed largely by a billion dollar State bond issue, is a logical extension of activities. Industry will cooperate to the maximum degree in this program. We recognize that this bipartisan program is intended to gear both State and Federal Government aid to localities of the State needing sewage treatment plants and intercepting sewers. Apart from the emphasis on localities, the Governor's water pollution program provides encouragement for industries

Gwyn Thomas

of this State to expedite their own considerable part in the work remaining before the goal of clean waters is achieved as industry wants it achieved."

3. I should like the record to show my belief that our past history in connection with water pollution is clear evidence of a very real desire on the part of industry to achieve clean waters in the public interest and as rapidly as possible. Our only reservation has been the need, of course, for being consistent with the overwhelming public stake in the economy and in the maintenance of the job-providing strength of industry, which I need not tell you is in the stiffest competition not only with other States, but with industry abroad. We think that our approach in New York State has been a fair approach and has resulted in a strong foundation upon which to build future enforcement action.

4. In connection with enforcement, may I point out that we have repeatedly advised our members that the time is here when we can consider the make-ready period of classification, etc., completed. We supported the Governor's proposal for an intensification of enforcement and a streamlined law expediting this which was adopted at the last session of our Legislature (Chapter 180

Gwyn Thomas

of the Laws of 1965). As Mr. Jerome Wilkenfeld, a member of our committee, told conferees at the Buffalo-Lake Erie conference on August 10:

"In other words, our make-ready period is ended and industries which have not brought their own pollution problems to the stage where correction is attainable should expect prompt and vigorous State legal enforcement action."

This applies particularly to the high priority being given in the Hudson River, as I understand it.

5. This is not to say that considerable progress has not been made by New York industries in connection with water pollution control. It has. But that is not to say either that some very serious situations do not continue to exist. They do! Yet these have been yielding, as pointed out in the statement of the League of Women Voters, to the process of voluntary and negotiated compliance with the public interest which has been characterized by the operation of our New York law to date. Many people from industry have worked closely both through the various State agencies involved and through our Temporary State Commission on Water Resources Planning on these problems.

Gwyn Thomas

I am glad Dr. Cohn is here so that I can express a personal word as to the magnificent contribution he made to the water resources planning and to the make-ready period in this massive attack on the problem in New York State.

The point here, of course, is that fair-minded observers will agree that we have made some progress in New York State. Our control program includes abatement plans for over 70% of the State's area, as official conferees have already told you.

Also, I think it is very significant that we added the office of local government to the State Water Resources Commission.

6. Another point that I wish to make is this: If immediate action on water pollution abatement in this generation is desirable, and we of industry think that it is, then the biggest demand before us and the biggest need is for cash to be used by our local communities in meeting their share of the problem. I remind the conferees that New York State's \$1.7 billion program is scheduled on the basis of State and Federal and local government sharing the cost -- 30% each for the State and Federal Governments and 40% for the localities. We of industry are very cognizant of the fact that stiff

Gwyn Thomas

tax costs will be involved in meeting the local share of this program, but this does not diminish in any way the support of industry for the Federal program. We hope that the Federal Government will meet the challenge of providing the necessary Federal aid. This is not to minimize the importance of maintaining at all costs State responsibility in this vital field. But it does express what conferees in other areas have had in mind when they refer to a partnership involving Federal, State and local governments.

I must state, of course, the office of local government too is part of that team, and we hope that we of industry are also.

We believe that New York State is sufficiently along in its pollution control work to do an outstandingly good job of meeting this challenge.

7. Governor Rockefeller's program embodies recognition of the need for providing cash to industry, which, however, is by no means looking for a hand-out in this field. We hope that the Federal Government will take action as suggested by previous speakers, perhaps along the lines of those suggested by Senator Ribicoff and certainly along the lines of the tax incentives adopted by New York State at the last session of the

Gwyn Thomas

Legislature, effecting a fast write-off under our corporation franchise tax and relating also to tax exemption under real property taxes.

Again I repeat that industry does not seek a hand-out, but we feel that the benefits of tax incentives will outweigh the possible disadvantages that can be involved.

A number of States have already moved in this direction, as you already know, Mr. Chairman. Certainly the matter is worth exploring from the Federal viewpoint in order to expedite this appalling job ahead of us in the water pollution field. I wish that it were possible for me to give you estimates on how much money already has been spent by industry in the Hudson River basin on water pollution control matters.

Unfortunately, the scope of the activity has been so vast that these figures are not available, but if the conferees are interested I think it would be very easy for us to make a survey and acquaint you with some dollar and cents figures along those lines. I believe personally that the amounts will run into many millions of dollars.

8. My final point is that I am not a technician, and I want to offer the assistance of our Water

Resources Committee in helping both State and Federal agencies meet technical problems which may develop. As Mr. Wilkenfeld said at the Buffalo conference:

"In regard to the question of effluent quality data, much has been made of industries purported reticence to provide information. This is patently misstated. Companies in the past have, and will continue to, provide data and samples to control agencies to help determine the quality of public waters, to develop new and improved technology and to develop any needed control programs. This has included the U. S. Public Health Service which receives this data through appropriate State agencies. It should be recognized, however, that all agencies using such data have a responsibility to the lay community as well as the supplier to use it in a meaningful way so that its significance remains in perspective. What industry objects to is the presentation of technical data in a form which can only be interpreted as being done in the interest of sensationalism. Our interest in pollution is not only in the pounds

emitted but the effect on the body of water."

In summary then, we believe that the Federal-State-local partnership has a major role to play in giving the public what it wants in connection with clean waters. But we believe that the primary responsibility should continue with the State government and State enforcement agencies. And we believe that there is a fourth partner in this State in the problem -- and that partner is industry, which wants to achieve the same end that you want to achieve.

We pledge our support to the recommendation made by Mr. Hennigan for the State of New York, and to the general activity of this conference in cleaning up pollution wherever found, Mr. Chairman.

MR. STEIN: Thank you, Mr. Thomas.

(Applause.)

MR. STEIN: Are there any comments or questions?

(No response.)

MR. STEIN: You know, Mr. Thomas, there is one thing that intrigues me. I appreciate your sentiment that in this State there is a fourth force working on this problem, and that is industry.

You know, as one who went to school many

years ago -- and that's when we weren't all taking Latin and Greek but I still received a semi-classical education -- we always regarded the fourth estate to be the press. Since the Spanish Civil War, "5" is a verboten number. No one can take "5," but we never skip that and you can't start with "6," so people still have to dislodge the press as Number 4. But I don't know -- maybe they will hold on.

MR. THOMAS: Thank you, Mr. Chairman.

MR. STEIN: Thank you.

Mr. Hennigan?

MR. HENNIGAN: Mrs. John Wallace, Legislative Chairman of the New York State Congress of Parents and Teachers, Inc.

Mrs. John Wallace

STATEMENT OF MRS. JOHN WALLACE,
STATE CHAIRMAN OF LEGISLATION,
NEW YORK STATE CONGRESS OF
PARENTS AND TEACHERS, INC.

MRS. WALLACE: Mr. Chairman, members of the
conference:

I am here representing grass roots citizens.

The New York State Congress of Parents and Teachers comprising over 600,000 members in about 2,000 units supports action to combat water pollution in New York State because of its concern for the health and well being of children, youth and families. The magnitude of the task of combating pollution of the Hudson River, which is destroying its value for recreation, industry and as a source of pure drinking water, requires Federal as well as local and State action if results are to be obtained within a reasonable length of time.

The New York State Congress of Parents and Teachers is supporting the New York State pure water program, which is designed to encourage State, local and private effort to combat water pollution in the State. We are actively mobilizing support for Clean Water

Mrs. John Wallace

Proposition #1 appearing on the State election ballot in November. It will authorize a billion dollar bond issue to provide State funds to be used in combination with local and Federal funds to finance local governmental sewage disposal and water purification facilities. The funds authorized will enable New York to move quickly to finance its share of Federal, State and local anti-pollution programs and to multiply the effectiveness of Federal funds allocated for the purpose. Passage of this proposition is essential if an effective New York State program to combat water pollution is to be achieved.

The New York State Congress of Parents and Teachers would like to suggest that any program to be developed by the Federal Government to deal with the problem of Hudson River pollution be coordinated with those of State and local governments and private industries also working in this area, since the problem is so complex that no one agency can deal with it effectively alone.

It would be most helpful if the Department of Health, Education, and Welfare would review the various Federal agencies having jurisdiction over the Hudson River and take whatever measures are necessary to eliminate duplication of effort and conflicts of interest among

Mrs. John Wallace

departments so that a coordinated plan of action by the Federal agencies with the Hudson River can be developed as rapidly and effectively as possible.

We would also like to suggest that the Federal Government take action similar to that taken by the New York State Government to encourage industries putting waste products into the river to make the plant conversions required to eliminate harmful waste. Some form of Federal tax benefit that would soften the impact to a manufacturer of the large expenditures required to reduce industrial waste being poured into the river could result in immediate action to eliminate water pollution by large numbers of plants along the river, thus removing an important source of Hudson River pollution.

The New York State Congress of Parents and Teachers would like to thank the U. S. Department of Health, Education, and Welfare for showing concern about pollution of the Hudson River. We urge immediate action on your part as a part of the local, State, Federal, and private effort to develop the programs required to do an effective job of overcoming it. We are prepared to encourage our membership to support such programs.

Thank you very much.

Mrs. John Wallace

MR. STEIN: Thank you, Mrs. Wallace.

(Applause.)

MR. STEIN: Are there any questions or comments?

(No response.)

MR. STEIN: You know, I think we have a hard core of people here. I would like to give you one point on this.

Mrs. Wallace, you have struck a recurring theme, and the recurrent theme is that the Department of Health, Education, and Welfare take whatever action is necessary to eliminate duplication of effort of the Federal agencies.

Mr. Hennigan in his report pointed out very clearly the kind of Federal agencies involved in water: The Corps of Engineers, Department of Commerce, U. S. Geological Survey, Department of the Interior, Department of Agriculture, Department of Defense, Department of Urban Affairs, Federal Power Commission, as well as others.

I ask you to think about this problem though, since we are here this long, in a realistic hard way. This suggestion has been made many, many times, perhaps most cogently by the Hoover Commission.

The problem that we have in water is that it

Mrs. John Wallace

is ubiquitous. Everyone is interested in water, as you can see by this conference. In anything you do about water, you get more interests pulling and tugging one way or the other.

Now, you have two questions here, one of coordination, attempting to get coordination to work in a real manner of planning, and the other question you have is the question of consolidation of power.

The real question here is whether in the Federal agencies you really want to concentrate that kind of power in the hands of one department, division or bureau, or what have you, and have the work in a coordinated manner, or you want to have them operate as a system of checks and balances.

I think we have a real fundamental problem here in American political philosophy and political theory.

As a matter of practical politics, the interest -- and when I say "vested interests" here I don't mean it in any deprecatory sense -- but the interest in all these particular fields in naming the constituent agencies which you have with a specialized interest are so strong and the blocks are so strong that they have successfully stymied any consolidation of these powers.

Mrs. John Wallace

I think before a group thinks in terms of these powers all being in one agency, you should really look and see if that is what you want.

Again, let me speak for the State and speak for us. I am just giving you this question and I am not making any judgment on it. When you are dealing with all the other interested agencies and you are dealing with pollution control, and I am speaking here for your own State and I will leave out New Jersey, you can see that Mr. Hennigan and ourselves from the Federal Government are pushing this water pollution control.

What would it be if we were in a general agency involving power, navigation, mines and reclamation, often interests that were promoting an industry or promoting an activity that was contributing the pollutant? I ask you the question: Do you think we would have the freedom of action we have now?

I think this is really something to ponder, because, like many other theoretical notions in the United States, this notion of coordination at first blush always seems to be very, very desirable. I put this forward to you almost as a theoretical question, because, as I pointed out, the many blocks of interests seem to foreclose the possibility of any such consolidation in the near future.

Mr. Hennigan, do you want to go on?

MR. HENNIGAN: I would like to make some comments.

MR. STEIN: Go right ahead.

MR. HENNIGAN: As the Chairman pointed out, you know these interests are not all particularly complementary. They frequently conflict in that at the State level the Water Resources Commission was created in an attempt to provide some sort of coordinated function or device, a place where people could get together and hammer out these differences, and the more I have become involved in this water business, the more I am impressed by the fact that everybody is interested in water. There are a tremendous number of groups that aren't just interested, but they have a vital interest.

That is part of the great challenge actually at both the State and Federal level, to balance these interests and come out with a policy which is in the public interest, and I think essentially that this is what we are all striving for.

MR. STEIN: Thank you, Mr. Hennigan.

May we go on?

MR. HENNIGAN: Dr. H. Jackson Davis, Commissioner of Health of Rensselaer County.

STATEMENT OF H. JACKSON DAVIS, M.D.,

COMMISSIONER OF HEALTH

RENSSELAER COUNTY, NEW YORK

DR. DAVIS: Mr. Chairman, fellow conferees:

I'm in good company this afternoon with the Audubon Society, industries, and the parents and teachers.

We have all heard and read yesterday and today of problems of pollution. I will speak briefly of problems for solution.

In behalf of Rensselaer County, a small county of about 150,000 population, located on the east bank of the Hudson River at and below its confluence with the Mohawk River, the Rensselaer County Department of Health has been requested to appear by the Honorable Joseph Fitzgerald, Chairman of the Rensselaer County Board of Supervisors, Mr. Robert Stierer, City Manager of the City of Troy, Mayor Clarence A. McNally and Corporation Counsel James S. Millea of the City of Rensselaer, to confirm their wholehearted support of the New York State Pure Waters program.

Mr. Fitzgerald, Mr. Stierer, Mr. McNally, Mr. Millea and many other public officials and private

H. Jackson Davis

citizens have on numerous occasions expressed their concern regarding the quality of the Hudson River and tributary streams in Rensselaer County and what can be done to eliminate the pollution of our waters. Although aid to communities for comprehensive sewerage studies has been invaluable, action is delayed or impossible, unless the burden of financing required for sewage treatment facilities can be overcome.

Mr. Fitzgerald's home community, the Town of Sapd Lake, is in the process of having a comprehensive sewerage study completed. This study shows that the town, with a population of about 5,000 persons, is faced with a cost of \$2.5 million in order to provide sewers and sewage treatment facilities. Therefore, sixty percent aid toward the cost of a sewage treatment plant would be a welcome assist.

Mr. Stierer in the "City of Troy six year (1965 through 1970) Capitol Improvement Program" indicates that the City of Troy is faced with a cost figure of \$5.2 million to provide a sewer trunk line and treatment plant to treat Troy's sewage. Costs to the taxpayer would be prohibitive, it is felt, unless the proposed 60 percent aid were made available.

Mayor McNally and Corporation Counsel Millea

H. Jackson Davis

report that Rensselaer City, jointly with the Town of East Greenbush, applied last April for funds to conduct a comprehensive sewerage study. Their financial problem is complicated by two other major items: first, possible reduction in assessed valuation due to acquisition by the State of lands for the Capitol City Improvement Program and, second, the new water construction program costing roughly \$2 million under which these two communities have contracted with the City of Troy for water from Troy's Tomhannock Reservoir. Hence aid is imperative.

The other communities of Rensselaer County, such as many towns and the villages of Hoosick Falls and Castleton, are faced with similar situations. Construction of sewage treatment facilities would impose severe financial burdens on all these communities unless aid is made available. Therefore, on behalf of Supervisor Fitzgerald, City Manager Stierer, Mayor McNally, Corporation Counsel Millea and the Rensselaer County Health Department, I wish to express wholehearted support of the New York State Pure Waters Program as a means of achieving water pollution abatement in Rensselaer County.

Thank you.

MR. STEIN: Thank you, Dr. Davis.

(Applause.)

H. Jackson Davis

MR. STEIN: Are there any comments or questions?

(No response.)

MR. STEIN: If not, thank you very much.

Mr. Hennigan?

MR. HENNIGAN: Mr. Stephen G. Doig, Jr.,
County Attorney, Rockland County.

STATEMENT OF STEPHEN G. DOIG, JR.

COUNTY ATTORNEY

ROCKLAND COUNTY, NEW YORK

MR. DOIG: Thank you, Mr. Hennigan.

Mr. Stein and gentlemen:

I appreciate this opportunity. Perhaps in relation to the Hudson River, we should rephrase a familiar adage to read "Clean Water is the staff of life." With our increased demands for pure water being coupled with our current and alarming incidents of pollution, the staff is in grave danger. Action must be taken now.

I am Stephen Doig, Jr., County Attorney for Rockland County, and am here to represent Rockland County on this vital issue.

Rockland is one of the fastest growing counties in the State. Lying just north of New Jersey, our eastern boundary consists of more than 25 miles of the most beautiful shoreline on the Hudson River. Here lies magnificent High Tor and Hook Mountain overlooking the broad expanse of the Tappan Zee and Haverstraw bays.

Unfortunately, this wonderful scene is marred at close-up by the all too obvious evidence of severe

Stephen G. Doig, Jr.

pollution. I can speak of this first hand having lived in Rockland County virtually all my life. I learned to swim in the Hudson River as a boy. It was dirty then, it is filthy now! Boys still swim in it but countless more long to.

We in Rockland County have been aware of this problem. We have taken action in the past and are taking action now. Within the last ten years our population has increased 55%. Many sewage and waste disposal problems have been precipitated by this growth. The capacities of our established facilities have been expanded and studies are in progress to meet the increasing needs of our future.

Let me tell you what we have done recently and are doing now to meet such present and future needs. Within the last two years we have established a county trunk sewer district with approved treatment facilities. Its installation is in progress.

The hamlets of Tappan and Sparkill have built effective collection treatment systems which went into operation in July of this year.

Orangetown Sewer District #2 has applied for and received a grant from the Housing and Home Finance Agency to complete a final engineering study for an

Stephen G. Doig, Jr.

8 million gallons per day treatment plant to replace and improve its existing facility.

Piermont is just finishing a project to accommodate the ever-increasing demands for sewage treatment and to replace their existing, but presently inadequate, plant.

South Nyack, Nyack and Upper Nyack have jointly begun a comprehensive sewer study to answer their pollution problems.

In Haverstraw, a report just completed, in cooperation with the State Health Department, deals with the abandonment of four current plants at Haverstraw and West Haverstraw in favor of a modern plant. This plant will service Letchworth Village and the New York State Rehabilitation Hospital. It will also be used by Elk Piece Dye Works. E & S Finishing Corp., United Wire Goods Manufacturing Co., Head Textile Printers, and Piermont Finishing Co. Each of these institutions or industries were mentioned in the report of the Department of Health, Education, and Welfare presented at this meeting as polluters of the river.

The Township of Stony Point has completed plans for a disposal system which will be in operation in 1966. This will provide services along our shoreline for

Stephen G. Doig, Jr.

two other industries: Kay Fries Chemicals, also mentioned in your report, and United States Gypsum.

We believe this covers us fully with respect to your report. All undertakings envision secondary treatment facilities, and we hope that our actions will serve as a guideline to other river communities.

Rockland is proud of its progress toward the solution of its problems of pollution at the local level, and we pledge to continue our efforts, including the urging of support for Proposition #1.

We will need the technical and financial assistance of State and Federal agencies to complete the job. Working together with this help and with the cooperation of our fellow communities, we can abate this great pollution problem and recapture our priceless heritage.

Thank you.

(Applause.)

MR. STEIN: Thank you, Mr. Doig.

Are there any comments or questions?

(No response.)

MR. STEIN: Mr. Doig, I am sure that if every one of the counties came forth with a program like yours for secondary treatment, we would be well on our way towards the solution of the problem of cleaning up the Hudson

Stephen G. Doig, Jr.

River.

MR. DOIG: Thank you, Mr. Stein.

MR. STEIN: Thank you.

Mr. Hennigan?

MR. HENNIGAN: Mr. Rod Vandivert, representing the Scenic Hudson Preservation Council.

Rod Vandivert

STATEMENT OF MR. ROD VANDIVERT
ON BEHALF OF
SCENIC HUDSON PRESERVATION COUNCIL

MR. VANDIVERT: Mr. Chairman, ladies and gentlemen:

Thank you. I am Rod Vandivert, representing the Scenic Hudson Preservation Council.

Right at the outset, I want to tell you that we are indeed grateful for a thorough and comprehensive study of the river, and we hope that no facet, no pollution will be overlooked.

The Scenic Hudson Preservation Conference actually was brought into being as much by the threat of pollution as any other single force.

From the beginning, when the first announced plans by Con Ed were set forth and printed, we pointed out that aside from natural problems, such as destroying beauty and destruction of the Hudson River Gorge, the Con Ed plant, now licensed by the Federal Power Commission, would pump to the top of the Storm King Mountain some 12 billion gallons of highly polluted salt water, replacing a natural reservoir of some 63 million gallons,

Rod Vandivert

creating a threat through the seepage and leaking to the water sources below, to the villages and towns as well as below in the watershed.

All of this was sharply challenged by the company, the commission and others. However, recent hearings and findings at Taum Sauk, which is currently the largest pump storage plant in the country, would indicate and would support our view.

Taum Sauk, a much smaller plant, has a 39-acre base which is completely sealed with 4 inches of concrete. From its very beginning 18 months ago, it began leaking at rates purported variously from 25 to 50 million gallons per day. After 18 months of hard work, after drawing it down and repaving several times, Taum Sauk is still leaking at the rate of 11 million gallons per day, and Taum Sauk is a minor plant compared to Storm King in volume.

I would further point out that there are two or three differences. Taum Sauk, like Storm King, is on a granite base. However, it is a much younger and less faulty mountain. Storm King is known to be an old, loose mountain. Taum Sauk, in addition, is paved. Storm King will not be. The threat to the fresh water still exists.

Up to the present, however, we are concerned

Rod Vandivert

too about another type of pollution, and that is the thermal pollution. We note that Con Ed, in a recent meeting, agreed that there was thermal pollution at the Indian Point Plant, and that there will be thermal pollution at a greater rate with the new power head. This is a type of pollution which we believe changes the total color of the river and creates more and more problems in cleaning up pollution.

One of the major problems that we see really is the present philosophy in that we are allowing industry to replace fresh water sources and, at the same time, we are contemplating the creation of desalinization plants, hereby creating perhaps another pollution problem, with again more hot water discharged into either wetlands, estuaries, the river perhaps, and again a total change of ecology and a mass of salty brine, the byproduct of desalinization, and nowhere to put it without again changing a basic area, without again polluting perhaps a wetland, or perhaps an estuary.

All of this, while we destroy fresh water sources, to us does not totally really make sense, and we rather hope that in the Federal cooperation, in the Federal organization, there can be some thought given to preventing the need for desalinization.

Rod Vandivert

I'm afraid I have no voice left. My throat is bad. If I may, I will submit a statement.

Thank you.

MR. STEIN: Thank you, Mr. Vandivert.

(Applause.)

MR. STEIN: Are there any comments or questions?

(No response.)

MR. STEIN: You know, I don't know that this is the time to take this up, but we would like to talk with you about salt water desalinization.

Mr. Hennigan?

MR. HENNIGAN: I have a couple of statements here that I would like to read into the record, Mr. Chairman. One is a telegram which reads as follows:

"Commissioner Ingraham's invitation to present views on possible solutions to the Hudson River pollution problem and on the need for the Pure Waters Bond Act is appreciated.

"The immediate control of existing pollution and the prevention of new pollution from cities and towns, industries, boats and vessels, and other sources is vital to the health

and welfare of the people in the Hudson River Basin and to the millions of visitors. Any solutions must meet the new Congressional purpose in the Water Quality Act of 1965 to 'enhance the quality and value of our water resources.'

"A renewed and rededicated pollution control effort needs strong State and local programs. The State of New York program providing, for the first time anywhere, an effective cost-sharing program with local communities and cities initiates a major breakthrough in the financing log jam for municipal treatment works. An effective solution to the Hudson River problem depends on the people of New York approving the Pure Waters Bond Issue in November. It also depends on the State of New York's new program of effective enforcement of New York pollution control laws. We look forward to the development by the conference of an effective cooperative program involving the local, State, interstate and Federal Governments. We hope that these views will be made part of the

conference record."

Signed, "Professor Leonard B. Dworsky,
Director, Cornell University Water Resources Center,
Ithaca, New York."

MR. STEIN: Thank you, Mr. Hennigan.

As you know, Leonard Dworsky and I have
worked together arm in arm for twenty years, and I think
I have his views emblazoned in my brain. I don't need
the telegram.

Thank you.

MR. HENNIGAN: I have another statement here,
a statement by the National Recreation Association to the
conference, and what I would like to do is have it put
into the record as if read.

MR. STEIN: Without objection, this will be
done.

STATEMENT OF THE
NATIONAL RECREATION ASSOCIATION

New York is already one of the States characterized as heavily urban -- the proportion of our population that is already urban is between 80 and 100% -- in the highest range of urbanization in the country. New York is also one of the few States in which the so-called rural population has been growing at a faster rate than the urban population. This is another way of saying that the rural areas are filling up. There will be more people living all along the Hudson -- no matter how far upstream we may go.

At a conservative estimate, the population of the New York Metropolitan Region will be 22 million in 1985. This is based on the simple increases to be expected that more people will be moving out of the area than will be moving in -- yet the simple excess of births over deaths in the area will add 6,000,000 to the population -- or the equivalent of the population of Los Angeles, the second largest metropolis in the country.

An increase of 6,000,000 is lower than many projections suggest. It is the most conservative figure

we could take. But even with that conservative figure we must find some way to provide opportunities for 6,000,000 more people to get a breath of fresh air occasionally and to find refreshment and recreation and inspiration from our American heritage. Certainly the recreation needs of these people will not be met by our existing open space and recreation facilities.

By 1985, the population in the areas surrounding New York City will be denser too. The demands on county recreation facilities will be heavier and the combined pressures of county and city populations will be so great it does not seem likely that anything short of a broad State-level approach can help our villages and cities and counties meet the need.

There will be a very special factor about that 1985 population. The census projections show that the number of school-age children in the area is likely to increase by 55% and the college-age population by 94%. Right now, we are in a slight temporary decline in the 30-to-34 age group because of the drop in the birth-rate during the depression of the 30's. But when the post World War II baby crop grows to house-buying age (about 1975) the pressures for single homes, the need for sound area planning for land use, the problems of

transportation and migrating industry -- all these will create tremendous demands for open space and recreation and tremendous threats to the open space we have -- if we don't begin to prepare in some orderly way.

New York State's children of 1975 should not be denied every child's birthright of knowing the outdoors and getting acquainted with our country at first hand. But it can happen if we don't develop some coherent, overall way of looking at the needs and resolving the various interest -- commercial, residential, recreational -- that must be considered.

Many of these recreation needs can be met by the happy combination of land and water which the Hudson River and its tributaries provide. But the recreation promise of the Hudson can turn into a nightmare upstream as well as downstream if we do not initiate adequate action to make and keep this great waterway clean.

We must also consider that the income of the average American family is rising. The studies of the Outdoor Recreation Resources Review Commission indicate that increasing income means increasing use of recreation opportunities. In other words, if population doubles, use is likely to triple because of rising income.

in 1961, according to the Chase Manhattan

Bank, employees in the United States took a total of approximately 50,000,000 vacation weeks in the summer months and they were expected to take another 32,000,000 weeks during the rest of the year. In addition, Americans now take some 467,000,000,000 man days as holidays. Even during an ordinary week, one-quarter of the average person's time is open to choice of activity. The average citizen has passed a point beyond which he can now look forward to more free hours than working hours in a lifetime. And these free hours are in convenient time-groupings that enable him to make the most of them -- if facilities are available.

Although it is often pointed out that the American people are a Nation on wheels, it is still a fact that the average family seeks recreation within after-work or weekend driving distance of home -- often near some body of water that offers recreation possibilities. Therefore, one of the main potentials -- actually necessities -- of the Hudson River and its tributaries, is to serve the people who live nearby. Any development plan for the river should take this into consideration and plan the type of recreation areas and facilities needed to meet this demand.

The Hudson River draws visitors from all over

the world. The sheer scenic value of the Hudson is a priceless recreation value. Whether it draws people from ten miles or ten thousand miles away, the beauty of the Hudson will not be restored after it is gone. As we shall be the poorer -- not just in tourist dollars but in spirit.

Other parts of the United States have found it necessary to look at their rivers as a whole rather than in bits and pieces. There are great plans for the Delaware Valley, the Columbia River, the Missouri River Basin.

Most of these river-basin plans are multiple-use plans. All the natural resources of each river basin are to be developed not just for industry but also for recreation. Recreation is now considered one of the most important uses of the water and the land which make up these basins.

The job of saving this great river will be costly. But it is also necessary. The challenge here is to develop a policy which will produce income without excluding from basic recreation opportunities the very people who need them most -- many of whom will still be in the lowest income group. Carefully scaled fees and charges might be considered as one way to help cover some

of the costs of developing and maintaining the recreation aspects of the Hudson. This will take careful long-range planning and consideration...the balancing of access to one type of area against the use of another.

The shores of the Hudson are among the last areas in the metropolitan New York area where there is still a chance to set aside open space for recreation within fairly easy reach of the families that live nearby. The Hudson itself is a great potential recreation area which is hardly utilized now because it is mostly unsuitable, due to pollution and lack of access at many points.

Water, in addition to being necessary to life (in a clean state), gives beauty to our land, supports fish and wildlife, and provides Americans with many of the most popular recreations -- swimming, boating, fishing and water skiing.

Pollution poured into the rivers and lakes from our homes and our industries destroy this great recreational value -- beaches are closed; fish and wildlife die and put an end to hunting and fishing; and boating and picnicking cease because of smelly, unsightly and unhealthy water.

As civilized people, we should have long passed the point where we accept dirt and ugliness and

pollution as inevitable. We don't have to accept them and we know now that for the sake of human sanity and strength we must not accept them. Human beings need open space and recreation that is truly recreative.

Can the recreational needs of the people of New York State be adequately met in the future? Yes, they can, if we take some thought for the planning and coordination that must be done, and utilize what we know and can find out about population increases and the economic development of our State. But the needs will not be met -- and we shall face great problems -- as well as losing great opportunities -- if we continue to let things slide. A population that is spreading, regardless of city or county lines, raises problems that must be solved on the same broad scale as they arise.

MR. HENNIGAN: I have another statement here by the New York Chamber of Commerce to the conferees, and, again, I would like to have this put into the record as if read.

MR. STEIN: Without objection, that will be done.

MR. HENNIGAN: Thank you.

STATEMENT OF THE
NEW YORK CHAMBER OF COMMERCE

PROPOSITION NUMBER ONE
PURE WATERS BOND ACT

This proposition would authorize the creation of State debt in the amount of one billion dollars to provide financing for the construction of sewage treatment facilities as part of the State pure waters program.

* * *

The Legislature in 1965 approved a comprehensive program for meeting the serious problem of water pollution throughout the State. The program consists of (a) tax deductions for expenditures incurred in the construction or improvement of industrial waste treatment facilities; (b) the exemption from taxation to the extent of any increase in value of property improved by the construction of industrial waste treatment facilities; (c) State financing aid for the construction of sewage treatment facilities by local governments. The key component of this program is this proposition which would permit the State to create debt for construction of sewage treatment facilities in the amount of one billion

dollars.

If the proposition is approved, implementing legislation has been supplied which authorizes the State Health Commissioner to contract with local governments for the construction or improvement of treatment facilities, sewers, and disposal plants which would be financed jointly by the local jurisdiction and the State. The State is authorized under the legislation to pay thirty percent of the cost of new construction but may not exceed sixty percent of the cost, which might result from prepayment of a possible Federal share in the project. Thus, the State contribution of a possible sixty percent of the cost of such construction, with the locality responsible for the remainder of the cost, means that the total anticipated allocation for such purposes in both State and local funds will be \$1.7 billion.

The implementing legislation, which is applicable only if the proposition is approved by the electorate, immediately appropriates \$300 million to the State Department of Health for the payment of non-municipal share of the cost of the construction of sewage treatment works. It also provides for the creation of a special fund in the State Treasury to be known as the "pure waters debt fund" into which shall be paid

reimbursements by the Federal Government and municipalities for use in the payment of installments of principal and interest on the State bonds issued for this purpose.

Recommendation of the Committee

The Committee on Law Reform recommends Chamber endorsement of Proposition Number One.

There is an obvious and urgent need to combat water pollution in New York State. The current and continuing region-wide water shortage underscores the necessity of pollution control in order to assure an adequate future supply of potable water.

The comprehensive pollution control program approved by the Legislature envisages the joint financing by local governments and the State of sewage treatment facilities, with possible Federal assistance. The Committee believes that the State has a proper obligation to guide and financially to participate in this program. Approval of Proposition Number One will provide financing for the State's share of this vital and important project.

MR. HENNIGAN: We received a request from a Mr. Bernard Kessler to appear and make a statement at this conference. Is he in the audience?

(No response.)

MR. HENNIGAN: Is Mr. John Graham here?

(No response.)

MR. HENNIGAN: Is Mr. Underwood here?

(No response.)

MR. HENNIGAN: Are there any other New York State invitees who would like to make a statement?

(No response.)

MR. HENNIGAN: Mr. Chairman, that concludes the New York State portion.

MR. STEIN: Are there any other papers from the Interstate Sanitation Commission?

MR. GLENN: No.

MR. STEIN: New Jersey?

MR. MINCHER: New Jersey was asked by the Junior Chamber of Commerce if they might be present today and perhaps make a statement. Is there any representative of the Junior Chamber of Commerce here from New Jersey?

(No response.)

MR. STEIN: Thank you, Mr. Mincher.

As I pointed out, we will recess for an

executive session. We do have a request from Congressman Dow, I believe, who is tied up on that ever-present home rule vote. If it is agreeable to the conferees, just before we reconvene to make the announcement tomorrow, if Congressman Dow is here we can let him make his statement.

We will stand recessed now until tomorrow at about 12:00 o'clock noon, in the Sert Room of the Waldorf-Astoria, which will be on the first floor. We hope to have a significant announcement at that time. We suggest that you do get here at about 11:00 o'clock.

There is one more thing. Mr. Lebow, have you been called back to Washington?

MR. LEBOW: Yes.

MR. STEIN: Mr. Sybor will be your contact man tomorrow at the Sert Room to find the precise time when we will reconvene.

We will stand recessed until between 11:00 and 12:00 tomorrow in the Sert Room. Thank you.

(Whereupon, at 2:35 p.m., and adjournment was taken until Thursday, September 30, 1965.)

THURSDAY, SEPTEMBER 30, 1965

12:10 P.M.

MR. STEIN: May we reconvene?

Before we come up with the conclusions and recommendations of the conferees, we are indeed honored today to have with us Congressman John G. Dow of New York, who represents a Congressional District on the west side of the Hudson, encompassing West Point and going up about as far as Newburgh, I understand.

The press of Congressional business, which has been hectic this week, has kept Congressman Dow in Washington, but he is here today, and at this point we would like to call on Congressman Dow.

STATEMENT OF HONORABLE JOHN G.
DOW, MEMBER OF CONGRESS, D-27TH
DISTRICT, STATE OF NEW YORK

MR. DOW: Thank you, Mr. Stein.

I am here today to help you declare unconditional war against pollution -- if not nationally, then at least locally, with the Hudson as our battleground. We must expand the programs we have started and provide all the funds necessary to back them up.

The State's \$1 billion Pure Water Bond Issue deserves the support of New York voters this November. I, as one of those voters, will vote for passage of that Proposition in the November referendum. And I, as a representative of nearly a half million upstate New York citizens, will vote in Congress, given the opportunity, for additional Federal funds to fight pollution.

The Federal Government has launched an all-out war against poverty and is advancing the money needed to fight that war. It is time we launched an all-out war on pollution -- and provided the funds to support it.

The most effective and practical way to clean up our Nation's streams is to provide adequate treatment

John G. Dow

for sewage -- and this means that the State and Federal Governments are going to have to supply local communities with sufficient financial assistance to get the job done. We haven't been doing that.

The Federal Government should take the initiative in efforts to cleanse the Hudson. I have written the Federal agencies that have facilities in my district dumping incompletely treated sewage into the river, saying that certainly we must put our own house in order before we can point the finger at anyone else. And I would hope the State feels the same, since there are more than a half dozen State agencies cited in the Public Health Service's pollution report.

The problems of the Hudson have been much in focus this year. On July 15th I introduced a bill, H.R. 9868, which calls for the States of New York and New Jersey to join with the Federal Government in a joint study of river problems with the ultimate goal of drawing up a comprehensive plan which could be administered by some type of Federal-State compact, similar to the present Delaware River Basin Commission.

Among provisions of my Hudson River Study Bill is a specific directive for the consideration of a program for eliminating pollution of the river.

John G. Dow

It is gratifying to see both State and Federal interests represented in this conference. I suggest that we should seriously explore the possibility of creating an intergovernmental commission to coordinate and direct our war against pollution -- to have jurisdiction as well over the other problems which confront us, as was featured in my own bill.

The Congress this year has increased the funds authorized for two types of sewer grants and the House recently passed and sent to the Senate a third program.

The Housing and Urban Development Act of 1965 authorized \$200 million a year for each of the next four years for a program of 50 percent Federal grants for the construction of basic water and sewer facilities, excluding treatment plants, which are eligible for 30 percent grants under the Water Pollution Control Act.

The Water Quality Act of 1965, which is now awaiting the President's signature, increases from \$100 million to \$150 million the amount available for the 30 percent grants for sewage treatment facilities. The ceilings on grants are doubled, to \$1.2 million for a single project and to \$4.8 million for joint projects.

These two programs are good as far as they

go, but it is time for Congress to realize they don't go far enough. There has never been enough money available to New York State to provide the full 30 percent. New York State alone could use the full \$150 million which is allotted for 50 States under the sewage treatment plant program. We must find and provide additional money.

Last week in the House we passed and sent to the Senate the Rural Water and Sanitation Act of 1965. This bill provides Federal assistance for the construction of water and sanitation systems comparable to the programs which are provided for urban areas by other legislation. As the bill now stands, \$50 million a year would be authorized for water and sewer projects.

There are many small villages and townships in New York State which need this type of assistance. There are also small, rural unincorporated areas which also could qualify for this aid, but are denied it through a quirk in New York State laws.

New York does not allow the formation of non-profit membership corporations that are required to receive these funds. A State law which would have permitted such corporations was vetoed in 1962. Another bill to correct this situation was introduced in the State Legislature last year, but never came to a vote.

John G. Dow

The continuing drought, the pollution of upstate streams which feed into such great rivers as the Hudson, make it imperative that the State take whatever steps are necessary to see to it that those rural communities which desire this Federal assistance are legally able to apply for it.

It's bad enough that there aren't enough funds to go around. It's even worse that some of our citizens are also denied the right to seek those funds that are available.

We must recognize these problems, join together to overcome them, and unite with the local communities which are eager to carry out this war against pollution if we will only provide them with weapons with which to fight.

Mr. Stein, let me thank you for this opportunity to appear before your group, and I want to wish you well.

(Applause.)

MR. STEIN: Thank you very much, Congressman Dow, for a very excellent statement and a significant contribution to the consideration of this problem. We indeed appreciate having you take the time to come up and hearing your remarks.

Mr. Hennigan has presented me with a statement submitted by Congressman Ogden R. Reid, which will appear in the record as if read.

Ogden R. Reid

STATEMENT OF HONORABLE OGDEN R.
REID, MEMBER OF CONGRESS, STATE
OF NEW YORK

Mr. Chairman, the Water Resources Council report to the President, dated September 7, 1965, emphasizes that water quality rather than simply quantity is one of the major problems in the Northeast, and warns that many of our rivers and streams are already useless.

It is clear all too many of our waterways are no longer fit for recreational purposes -- to say nothing of the disgraceful condition of the water and its worthlessness for drinking purposes. In my judgment, the conservation of our natural resources -- the purity of our streams and rivers -- is today a vital matter and the public interest is paramount.

The Hudson River, unfortunately, is a prime example of these disgraceful conditions and rightly the subject of this intergovernmental conference. A report of the Public Health Service of the U. S. Department of Health, Education, and Welfare, dated September 1965, has stated: "The entire Hudson River, from the Albany-Troy-Rensselaer area to the Narrows, can be categorically

described as polluted."

It is encouraging that steps are now being taken by the State of New York and the Federal Government to deal energetically with water pollution. Specifically:

A. As soon as the electorate in New York State approves a \$1 billion bond issue in November, the State will receive the financial resources for its \$1.7 billion "Pure Waters Program." This ambitious undertaking seeks to eliminate water pollution in the State within six years.

B. The final passage on September 21 of the Federal Water Pollution Control Act of 1965 will further enable the Federal Government to provide necessary financial and technical assistance by the establishment of a new Federal Water Pollution Control Administration, and by authorizing \$20 million a year for the next 3 years in matching grants for projects to develop improved methods of preventing untreated sewage and wastes from being discharged into bays and rivers, from storm water sewers or from combined storm and sanitary sewers. This law also increased the maximum Federal grant for a single sewage treatment project to \$1.2 million.

The principle, it seems to me, is clear.

Ogden R. Reid

First, both the States and the Federal Government have a responsibility to act; and secondly, neither industries nor municipalities can be allowed to further pollute a great river. It is essential that through research and the development of more advanced treatment facilities all raw sewage be eliminated totally from water pumped into our streams, rivers, and waterways. To the extent it is possible, we should, I believe, ensure that this waste is chemically pure.

As a former American Ambassador to Israel where water is both precious and essential to life, it is a matter of some wonderment that we continue to be so profligate in the contamination of our natural resources. Let us begin anew at the local, State, and Federal levels working in a common spirit to restore that which we have destroyed, to preserve that which we will have, and to provide for generations yet to come the beauties of nature to which they are entitled -- not the least of which is an abundant supply of clear and pure water.

MR. STEIN: We also have had submitted a statement by Mr. Ronald Spevack, Assistant State Chairman, New Jersey State Jaycees Clean Air and Clean Water Program.

Without objection, this statement will appear in the record as if read.

Ronald W. Spevack

STATEMENT OF MR. RONALD W. SPEVACK,
ASSISTANT STATE CHAIRMAN, NEW JERSEY
STATE JAYCEES

Clean water is the very basis of our modern society and the heart of our civilization. A lack of clean water has hindered the development of vast areas in the western United States. A continuation of worsening pollution will curtail progress and growth in the Hudson River area, the subject of this conference.

In part water pollution control may be viewed as an integral function of urban renewal. In order to revitalize our cities and urban areas, a high degree of water pollution abatement is necessary. Our cities once again must be made an inhabitable, desirable place to live. Our cities must have an economic rebirth. Both these goals require abundant clean water for recreational and industrial uses.

For too many years water pollution control was characterized by the dominance of the few over the rights of the many. Vested interests controlled and dictated the policies and decisions adverse to the public's benefit. To state the obvious, the awakened citizens

Ronald W. Spevack

will no longer tolerate such conditions. They will demand and expect immediate concrete gains in water pollution control. Woe to those officials who disappoint and fail to meet the public's standards.

During the course of this conference, its purpose, the abatement of water pollution, must be kept foremost in mind. Although local and/or State officials may be justifiably criticized, this should be avoided. A witch hunt to find what parties or agencies are at fault or, to be more precise, more at fault will achieve nothing. A regression into the political arena will bloody the participants and cause needless delays. An attempt to lay the blame for the present conditions will create headlines but insure a lack of cooperation among the various agencies. The goal of this conference, cleaner water, requires that yesterday's many mistakes be subordinated in the interest of a joint renewed effort in water pollution control.

The New Jersey State Jaycees would suggest the following points for an effective water pollution abatement code:

1. We believe there should be a clear deliniation of authority between the agencies concerned with water pollution

Ronald W. Spevack

control in the Hudson River area. Responsibility must be clearly defined so as to avoid confusement and delays.

2. The Federal Government should establish a framework of water quality standards but reserving the rights to the State and interstate agencies to establish stricter standards within this framework.
3. The Federal Government should establish a framework of standards for emissions from industrial and governmental installations. These standards should be precise and comprehensive. Again, the rights should be reserved to the State and interstate agencies to establish stricter standards within the Federal framework.
4. The New Jersey Jaycees support the whole concept of water pollution control through long range planning. A comprehensive plan for the construction of sewage treatment plants should be established immediately.
5. The New Jersey Jaycees believe that this conference state as its policy all sewage whether domestic or industrial should receive

Ronald W. Spevack

at least secondary treatment and that primary treatment plants are inadequate to treat modern waste matter. This conference should establish as its policy the construction of separate storm sewers and sewage systems so as to avoid bypassing waste without treatment during periods of heavy rains or storms.

6. Studies should be commenced to indicate the feasibility of water reclamation techniques and possibly salt water conversion. The increasing needs for fresh water supply must be planned in a long range program.
7. The New Jersey Jaycees support the United States Public Health Service action in calling this conference. It is hoped that the local and State officials will follow the guides as set forth in this conference, thus making it unnecessary for further direct action by the United States Public Health Service. If, after a reasonable period of time, sufficient progress is not forthcoming, and the interstate aspects of water pollution continue, the United States Public Health Service should not hesitate to again assert its authority.

Ronald W. Spevack

8. The New Jersey Jaycees believe that the timetables for construction of sewage disposal plants as currently set forth should, if possible, be made tighter and more stringent. The utmost importance of these projects demand that the financial commitments be made immediately.
9. The New Jersey Jaycees support Federal and State monetary assistance in the form of tax incentives, etc., so as to stimulate the construction of water pollution control equipment. This aspect of the program must be carefully defined so as to avoid administrative difficulties that may generate uncooperative attitudes.
10. It is the belief of the New Jersey Jaycees that this program should not be presented as anti-industry. This is not to say that vigorous action against industrial polluters should be delayed. To avoid public resistance, it must be made clear that industry will be one of the greatest benefactors of a water pollution program. Although some industry must be criticized, the overall industrial

Ronald W. Spevack

progress of this area requires an abundant supply of clean water.

11. The New Jersey Jaycees believe a well defined and coordinated enforcement program must be established. Overlapping agencies tend to diffuse the line of responsibility and create inefficient supervision and investigation. Technical and artificial jurisdictional lines create administrative and political hardships.
12. The New Jersey Jaycees pledge ourselves to be of assistance to all officials and agencies charged with the task of controlling water pollution.

THE FOLLOWING IS A SUMMARY OF THE NEW JERSEY STATE JAYCEES
PROGRAM ON CLEAN WATER

The program has a comprehensive educational and informational aspect. Written material, bulletins, slides and sound films are made available to the approximately two hundred local Jaycee chapters throughout New Jersey. The New Jersey State Committee on Clean Air and Clean Water also has speakers available to interested local chapters.

Ronald W. Spevack

The New Jersey Jaycees program on clean water also includes areas of direct action. Local chapters are urged to study their neighboring area to determine the local water pollution problems. A comprehensive survey of local sewage facilities and industrial control is outlined. Assistance is given in studying local codes and regulations. Local chapters are urged to cooperate with officials in sponsoring appropriate remedial action.

The State Jaycees offer instructions on assisting in investigation of complaints. Local chapters are encouraged to assist officials in such areas. The Jaycees recognize the difficulty in these areas due to lack of sufficient manpower by various authorities.

One such example of direct action by a local Jaycee chapter in curtailing water pollution occurred in Perth Amboy, New Jersey. After the local chapter had made a complete and thorough investigation of water pollution sources within the City of Perth Amboy, they contacted United States Army Engineers. The said investigation would not have been possible without the assistance of many local citizens. United States Army Engineers then sent field representatives to the City of Perth Amboy. The Perth Amboy Jaycees Committee on Clean Air and Clean Water acted as guides for the Army Engineers and it showed

every known source of water pollution. Subsequent correspondence with the United States Army Engineers indicate that progress has been made as a result of this information. Various industrial sources of water pollution have been curtailed or construction has commenced to prevent future water pollution.

The local Jaycee chapters are informed as to current legislation concerning water pollution abatement. The Jaycees on all levels of the State organization hold meetings and conferences to determine the merit of new regulations or legislation. The local Jaycee chapter and/or the State Committee on Clean Air and Clean Water will act to generate support for said measures concerned with water pollution control.

Closing Statement - Murray Stein

MR. STEIN: At this point, I would like to read the conclusions and recommendations of the conferees.

I am happy to say that we have come to a unanimous determination on this. The case has, of course, been a very complex one. The conferees did consider all the statements put in by the various people, the State agencies, the citizens' groups, industrial representatives, municipal representatives, Congressional representatives, and the State officials.

In dealing with a complicated problem like this, of course, we had to realize that there had to be mutual concession on all sides, and yet I think we were all impressed with the need for coming up with an effective and meaningful program.

The conferences encompassed several days, and I think we did get the benefit of all the views represented in the entire area of pollution control.

I would like to say that this has been one of the more successful conferences we have had in achieving a consensus. The various groups interested in water pollution control -- the national interest, the State representatives, the conservation groups, the citizens' groups, the League of Women Voters, and so forth -- were closer together here than I have ever experienced before.

Closing Statement - Murray Stein

I do think we find a much closer awareness of the problem and the recognition that something has to be done now, more so than we did in the past.

I think we are in a period here of evolving national policy. Sometimes, when you get to a single conference or a meeting of this kind, it is hard to discern the big picture.

It was just within the past twenty years, or less than twenty years, that we really have had any comprehensive Federal water pollution control legislation on the books. To indicate the scope of this policy, I think we have to look at the ferment we have had both in Federal and State legislation. This is a good indicator, because legislation has formalized the synthesis in our society of what national policy is.

Since 1948, most of the States have enacted new or improved legislation and have significantly changed the legislation. In that time, the Federal Government has had the first act in 1948, it was amended in 1953, again in 1956, again in 1961, and again the Federal act was just amended and has been sent to the President for signature. It is on the President's desk right now.

In other words, you can see the changes that have been made in national water pollution control legis-

Closing Statement - Murray Stein

lation. Each one, I think all will agree, has strengthened the Federal Act. I think each of the State enactments has strengthened the State acts.

You have heard from New York State at this conference of the significant amendments which were just passed in the New York State acts at the last session of their legislature, making tremendous changes in the law, and I think the Senators and the Congressmen -- at least the Federal people -- have indicated that this will not be the last Federal legislation you are going to see on water pollution, but other legislation will follow.

So I think we are in a very, very thrilling area of developing national policy and a national consensus on a particular issue. It is the kind of area that has always presented the most vexing problem and delicate problem in the latter half of the 20th century, which is when you get one instrumentality of government asking another instrumentality of government to do something when they may not just be quite ready to do so.

You have seen this with explosive consequences in other fields, but I think the States have agreed very much on this problem, and the interstate agency has too, and I think this conference technique is one attack and one measure of attempting to deal with it.

After hearing these conclusions and recommendations, I hope you will agree with me that we have been successful and that this technique does work.

I would like to commend the conferees, because we have had unanimous conclusions and recommendations. These are as follows:

1. The Hudson River and its tributaries, considered by this conference, are interstate waters within the meaning of the Federal Water Pollution Control Act.
2. There is interstate pollution of these waters. This pollution is subject to abatement under the Federal Water Pollution Control Act.
3. Such pollution is caused by many factors including sewage and industrial waste discharges, oil, silt, sediment, heat, floating solids, nutrients, sludge deposits, and combined sewer overflows. Sources of pollution are in both New Jersey and New York.
4. This pollution interferes with recreation, commercial fishing, sport fishing, navigation, domestic and industrial water supplies, and esthetic values.
5. The States of New Jersey and New York and the Interstate Sanitation Commission are empowered to abate pollution and have active programs to accomplish this result. These programs include: establishment of

Closing Statement - Murray Stein

water quality requirements; enforcement actions to abate waste discharges; development of comprehensive water pollution control programs; and fiscal incentives.

6. Delays in abating pollution are caused by the lack of adequate treatment facilities and the complex technical and financial problems presented by the use of a waterway serving the largest metropolitan area in the country.

7. Cognizance is taken of the activities of the U. S. Army Corps of Engineers and the Coast Guard in abating pollution resulting from oil, sludge, silt and floating debris, as well as the program of the Federal Government to abate pollution from all Federal installations.

The Department of Health, Education, and Welfare shall advise and consult with other Federal agencies in the area covered by the conference to see that all Federal installations install, construct and operate adequate pollution control facilities which will meet the requirements of the States and Interstate Sanitation agency concerned, as well as the Federal Government.

The States and Interstate agency recognize that the Department of Health, Education, and Welfare is the Federal agency primarily charged with abatement of

pollution of interstate or navigable waters. They recommend that the Department take the lead in coordinating the activities of all Federal agencies concerned with water quality in the Hudson River and its tributaries so that the Federal Government may have a unified approach in dealing with the States and Interstate agency.

8. The benefits which would result from increased State water pollution control activities under such programs as the proposed \$1 billion "Pure Water" Bond Issue in New York State are acknowledged.

9. All discharge sources to the Hudson River and its tributaries, whether public, Federal installations, or industrial, shall receive a minimum of secondary treatment or its equivalent, and effective disinfection of the effluents as required to protect water uses.

10. Industrial plants shall improve practices for the segregation and treatment of wastes to effect the maximum reduction of the following:

- a) Acids and alkalis;
- b) Oil and tarry substances;
- c) Phenolic compounds and organic compounds that contribute to taste and odor problems;
- d) Nutrient materials including ammonia and nitrogenous phosphoric compounds;

Closing Statement - Murray Stein

- e) Suspended material;
- f) Toxic and highly colored wastes;
- g) Oxygen requiring substances;
- h) Heat;
- i) Foam producing discharges;
- j) Other wastes which detract from recreation uses, esthetic enjoyment or other beneficial uses of the waters.

11. Surveillance and monitoring of the operation and maintenance of sewage and waste treatment facilities in the conference area shall be conducted by the States of New Jersey, New York, the Interstate Sanitation Commission, and the Department of Health, Education, and Welfare at locations and frequencies to yield reliable values of waste outputs and resulting receiving water quality, and to show their variations.

12. The Federal conferee recommends the following time schedule for the foregoing remedial program:

- a) Designs for remedial facilities completed by January 1, 1967;
- b) Financing arrangements completed by April 1, 1967;
- c) Construction started by July 1, 1967;
- d) Construction completed and plants placed

Closing Statement - Murray Stein

into operation by January 1, 1970;

- e) Commensurate schedules should be adopted for the interception and treatment of industrial wastes and wastes from Federal installations;
- f) Existing schedules calling for earlier completion dates are to be met.

13. The magnitude of the pollution problem caused by discharges from combined sewer overflows is recognized. The Department of Health, Education, and Welfare, in cooperation with the States of New Jersey, New York, and the Interstate Sanitation Commission, will undertake a review of the problem and develop a program for action for consideration by the Federal Government, the States and the Interstate Sanitation Commission by December 31, 1968.

The construction of combined sewer systems in newly developed or redeveloped urban areas shall be prohibited, and existing combined sewers shall be eliminated wherever feasible.

Programs shall be established for surveillance of existing combined sewer systems and flow regulating structures to convey the maximum practicable amount of combined flows to and through treatment plants.

Closing Statement - Murray Stein

14. The conferees representing New Jersey, New York and the Interstate Sanitation Commission call attention to the fact that financing is the key to sewage treatment plant construction. In the past, the financial burden for construction of sewage treatment facilities has been borne by municipalities and industry. This method of financing must be changed if the progress visualized in this conference is to be achieved.

15. Regional planning is often the most logical and economical approach towards meeting water pollution problems. The water pollution control agencies of New Jersey, New York, and the Interstate Sanitation Commission, and the Department of Health, Education, and Welfare, will encourage such regional planning activities.

Do the conferees have any comment or questions at this time? If not, I would like to thank you all again for staying with us through the maze of facts and materials we have, and your participation in the conference.

I do think that we have made a major step forward by the Federal Government, the States, and the Interstate agency, in coming to grips with the problem and coming up with a positive active program for solution

Closing Statement - Murray Stein

to the problem for a cleaner Hudson that we can realize
and see in our lifetime.

Thank you very much.

We stand adjourned.

(Whereupon, at 12:30 p.m., the conference
was adjourned.)

The following letter was received from the Department
of Health of the State of New York:

"STATE OF NEW YORK
DEPARTMENT OF HEALTH
84 Holland Avenue
Albany, N. Y. 12208

HOLLIS S. INGRAHAM, M.D.

COMMISSIONER

DIVISION OF

ENVIRONMENTAL HEALTH SERVICES

Meredith H. Thompson, D. Eng.

Assistant Commissioner

BUREAU OF

WATER RESOURCE SERVICES

ROBERT D. HENNIGAN, P.E.

DIRECTOR

October 15, 1956

"Murray Stein

Water Pollution Enforcement Unit

U. S. Department of HEW

Washington, D. C.

Dear Murray:

"Enclosed are copies of statements which we have
received since the New York Enforcement Conference, and
we request that the statements be incorporated as part of

the conference.

"We would appreciate any help you can give us on this.

"Yours sincerely,

/s/ Robert D. Hennigan, P.E.

Director

Enc. Bureau of Water Resources"

(The statements referred to in the above letter are as follows:)

"STATEMENT BY ROBERT JAMES, NEW YORK STATE JAYCEE
CLEAN WATERS CHAIRMAN, SUBMITTED TO THE FEDERAL
HUDSON RIVER POLLUTION ENFORCEMENT CONFERENCE,
WALDORF ASTORIA HOTEL, NEW YORK CITY, SEPTEMBER

29, 1965

I am extremely pleased to have the opportunity to represent the New York State Jaycees before this Conference.

The New York State Jaycees have been active for over four years in urging the abatement of pollution in New York's precious rivers, streams, and lakes. During the spring of 1962 many local Jaycee chapters along the Mohawk River, cooperating with a large industry in Schenectady, recorded on film the horrible pollution which exists in

that river. The Jaycees then took to the countryside with this film, informing the residents of the blight which was affecting the economic growth of the region.

In 1963 the New York State Jaycees adopted "Tommy Trout" -- a giant fish -- as their symbol to combat water pollution. To dramatize this pollution plague on our society, a Jaycee canoe trip was organized on the Mohawk and Hudson Rivers.

I understand that some of the members of this conference were surprised with what they saw on Monday's boat tour up the Hudson. Imagine what it would be like sitting in a canoe less than twelve inches from that water.

Throughout 1964, seminars and forums pointing out this fantastic problem were held in local communities along the Hudson and across the State. Last spring a motor caravan featuring a giant cardboard replica of "Tommy Trout" was organized from Utica to the State Capitol in Albany. Along the way fifty-five thousand signatures were obtained from citizens urging the adoption of Clean Waters in New York State and expressing support of Governor Rockefeller's Pure Waters bond program. As you know, this plan of action was passed unanimously by the legislature.

The New York State Jaycees wholeheartedly support and urge a "Yes" vote on Governor Rockefeller's Pure Waters

bond proposition which will be on the ballot this November. Members of our Jaycee chapters, whether they live in New York City, in Newburgh, in Poughkeepsie, in Kingston, or in other communities along the Hudson, or in the cities, towns, and villages of upstate New York -- want, need, demand clean waters for their children and their families.

Today we cannot afford to postpone action in this vital area. We cannot run away from the responsibility of eliminating water pollution. If we do, the financial burdens will only fall on the shoulders of our children at many times the present cost. No longer can we depend on municipalities to do this job alone. We need the assistance of the State and Federal governments. With the passage of Governor Rockefeller's Pure Waters program, we will have the necessary State funds to assist in the financing of local municipal treatment facilities and interceptor sewers. But we also need the full financial participation of the Federal Government.

We hear and read about the "Great Society." There can be no Great Society as long as this plague called water pollution threatens the health and recreation of our children, the economic growth of our industries, and the beautification of our State. Action is needed now to clean up the Hudson and the other rivers, streams,

and lakes of New York State."

* * *

"COUNTY OF ULSTER

Vernon B. Link, M.D.

DEPARTMENT OF HEALTH

Health Commissioner

COUNTY OFFICE BUILDING

244 Fair Street, Kingston, New York

Telephone Federal 1-9300

September 27, 1965

BOARD OF HEALTH

Virgil B. DeWitt, M.D., President

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Benjamin A. Storms

Dr. Hollis S. Ingraham

New York State Commissioner of Health

New York State Health Department

c/o White Plains Regional Office

99 Church Street
White Plains, New York

Dear Dr. Ingraham:

Your letter of September 22, 1965, inviting me to participate at the September 28th conference on inter-state waters has been received.

I cannot attend the conference, but on behalf of the Ulster County Department of Health I offer the statement below which the State Department of Health may enter on the record of the conference.

1. The Hudson River and its tributaries represent a water supply, recreational, transportation and industrial resource valuable to Ulster County.

2. The Hudson River and its tributaries form the drainage pattern for practically all of Ulster County and, based on simple common sense, this drainage pattern must carry that portion of the used and spent water of the water-carried sewage systems, industrial processes, and surface drainage naturally reaching the streams.

3. That these two situations are not in all instances incompatible and that the dual use of the drainage system requires collection and treatment of the spent water supplies to a degree measurable in terms of public health, comparative economics and esthetic

acceptance.

4. That Ulster County communities have provided treatment of wastes collected in formal sewage systems to a degree heretofore considered adequate by the New York State Department of Health and that certain of these treatment devices require enlargement or repair to meet changing conditions and populations.

5. That this situation is not peculiar to Ulster County, New York State or other areas of the United States, and in Ulster County is better than in most areas.

6. That if funds are to be raised as a real estate tax for improvements deemed necessary for additional waste treatment, local communities can benefit from and must have financial assistance from other tax sources, presumably those controlled by the State and Federal Governments. Also, that if industry is to enjoy a competitive climate certain cost alignments must be recognized.

7. That the Ulster County Department of Health has supported the Pure Waters Board Act and recommended its approval by the voters of the State, feeling sensible administration of the supporting legislation will result in the desirable objectives.

Sincerely yours,

/s/ Vernon B. Link, M.D.

VBL:mrw

Commissioner of Health"

* * *

"ORANGE COUNTY BOARD OF SUPERVISORS

OFFICE OF THE CHAIRMAN

GOSHEN, NEW YORK 10924

ALBERT C. HOWELL, Chairman

LESTER J. ROOSA, Clerk

September 30, 1965

Hollis S. Ingraham, M.D.

Commissioner of Health

State of New York

Department of Health

Albany, New York

Dear Mr. Ingraham:

I regret that I was unable to attend the conference in the matter of the pollution of the interstate waters of the Hudson River and its tributaries which was held at the Waldorf Astoria in New York City on September 28th.

Orange County, which forms a considerable part of the western shoreline of the Hudson, is directly affected by the present violations of sanitary regulations

which evidently are so numerous within the drainage area which this river serves.

Therefore, on behalf of the residents of Orange County, I offer the following observations for the record of this hearing.

The present polluted condition of the Hudson River is a matter of great concern to all residents and public officials of Orange County and in particular its effect on the use of the river as a future water supply resource.

A 1959 county-wide study of future water supplies cites the Hudson River as the major source of supply after existing inland facilities can no longer meet the demand.

If corrective measures are to be taken to clean up the Hudson River, they must apply to the entire area comprising the river watershed. These measures cannot be taken on piecemeal basis, community by community; therefore participation by the next level of government, the State, is warranted.

The inducements provided by the proposed "Pure Waters Bond Act" will furnish an excellent basis for the first stage in cleaning up the Hudson River.

Very truly yours,

/s/ Albert C. Howell, Chairman,

Orange County Board of Supervisors"

* * *

"STATEMENT OF ROD VANDIVERT, EXECUTIVE DIRECTOR,
SCENIC HUDSON PRESERVATION CONFERENCE, BEFORE
THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
HEARINGS HELD AT WALDORF ASTORIA HOTEL IN NEW
YORK, SEPTEMBER 29, 1965

Mr. Chairman, ladies and gentlemen:

I am Rod Vandivert, representing Scenic Hudson Preservation Conference. First, I want to express our thanks to you for your thorough study of the Hudson, and to express our hopes that the study will cover all areas of and types of pollution and fresh water loss.

The threat of water pollution was one of the important causes for the establishment of the Scenic Hudson Preservation Conference. From the beginning we protested that in addition to destroying Storm King Mountain, violating the Hudson Gorge and setting a precedent for future depredations, the Con Edison plan to create a pumped storage plant on Storm King Mountain would destroy a fresh water source and would be a hazard to all fresh

water resources in the Cornwall vicinity, as well as threaten adjacent areas such as West Point.

It was and still is our contention that the 12 billion gallon reservoir at the top of Storm King Mountain would, through seepage and leakage, pollute adjacent areas and water resources with highly polluted, salty water pumped from the Hudson River (in addition to totally destroying and replacing a fresh and pure reservoir of 63 million gallons now an active part of the Cornwall system).

Our position was sharply challenged by the company, the Commission and others. Now, however, our fears are fully supported by incontrovertible evidence that the Taum Sauk pumped storage plant has been leaking like a sieve ever since it was put into service 18 months ago. Despite careful precautions and several attempts to correct the problem, Taum Sauk continues to leak in excess of 10 million gallons of water per day.

To compare the two projects:

Taum Sauk is currently the largest pumped storage hydroelectric project in this country, yet it is small by comparison with the Con Edison proposal.

Taum Sauk is fully paved with four inches of asphaltic concrete. Con Edison's project would not be.

Taum Sauk is built on a granite mountain. Storm King is of the same material, but older and faultier. It is described as a "loose mountain."

Taum Sauk began leaking at the rate of between 25 million and 50 million gallons per day. Many of the leaks have not yet been found despite four or five complete drawdowns for inspection and repair. With the added water pressure from a much larger project, at a much higher altitude, what will the salty and polluted river water from Storm King do? What damage will the inevitable large quantities of salt-laden, polluted water do to the mountainside and to watersheds adjacent?

Up to the present we do not believe that all the forms and areas of pollution concerning the river have been fully covered. In recent meetings, Con Edison officials have admitted to thermal pollution of the Hudson River and now with the proposal of a new and more powerful atomic fuel source, there is no doubt that there will be greater heat reinjected into the river.

At Indian Point, Con Edison's atomic plant, there have been massive fish kills. The estimates run to millions of fish. But these cannot be substantiated through official records. State officials have either been ignorant of the scope of the damage or have obscured these figures and facts. We do know, however, that thermal pollution kills fish, micro-organisms and important forms

of life in the river ecology. This is an ever-increasing problem. What will be done about it?

We are greatly concerned over the present philosophy of water resource use and control. It seems that our officials are willing to allow industry to take over and destroy sources of fresh water for short-term and frequently unnecessary gain, while we turn to costly desalinization projects and schemes to offset our losses. And desalinization itself is becoming a more and more important part of pollution in our wetlands, our bay waters and our estuaries and in the Hudson River itself. When fresh water is extracted from salt water we are left with the problem of disposing of highly concentrated and extremely hot brine. As of now, we are simply dumping this back into the salt water from which it was initially taken, and in doing so we are destroying the ecology and the balance of estuary, bay or even ocean.

The relationship of this to the Hudson River is a direct one. In the Hudson right now Con Edison is planning to destroy deliberately and unnecessarily a drought-proof and pure fresh water resource, replacing it with a potential pollution of many other fresh water sources, and they are doing it with the consent of the village and with the consent of the State, which seems more concerned with this particular development than with

pure water, and with the consent of New York City, whose Catskill Aqueduct will be tapped for up to one million gallons a day by the very village which is giving away its fresh water.

New York City has said that the tapping of the Catskill Aqueduct, the deliberate destruction of the Cornwall water supply (and the Water Resources Commission decision making all of this possible in one unnecessary but expedient instance) is/^a purely local upstate matter. The thought that the loss of a million gallons of water a day to New York City is "a local upstate matter" is rather ludicrous in view of the present "save water" posters you now see everywhere in this city.

Single-purpose agencies, such as the Federal Power Commission, would prefer to see -- in fact, has ^{that} stated/its mission is to see -- that water resources are used for the development of power. In this instance it is clearly giving only lip service to pollution, loss of fresh water resources, destruction of natural values and other factors that it is presumably to consider. Other single-purpose agencies are equally dangerous to our natural resources and to our water supplies in performing their narrow and totally uncoordinated functions.

Gentlemen, if industry is to flourish, if our

population is to be served, if, indeed, the Hudson River and its environs are to be any more than a highly-polluted loss, we need Federal help, and we need it now.

We endorse the State's Pure Waters Program as being one facet, and an important facet, of an overall program. But unless there is both coordination and control of all of the polluting agencies and elements, we fear that the future will not readily bring us a pure and usable river.

Thank you, gentlemen. It is our hope that from these hearings will come the basis for an important single authority which can supersede those forces which are now destroying our water resources and our whole environment."

* * *